

§ 90.555 Information exchange.

(a) *Prior notification.* Public safety licensees authorized to operate in the 763–775 MHz and 793–805 MHz bands may notify any licensee authorized to operate in the 746–757, 758–763, 776–787, or 788–793 MHz bands that they wish to receive prior notification of the activation or modification of the licensee's base or fixed stations in their area. Thereafter, the 746–757, 758–763, 776–787, or 788–793 MHz band licensee must provide the following information to the public safety licensee at least 10 business days before a new base or fixed station is activated or an existing base or fixed station is modified:

- (1) Location;
- (2) Effective radiated power;
- (3) Antenna height; and
- (4) Channels available for use.

(b) *Purpose of prior notification.* The prior coordination of base or fixed stations is for informational purposes only. Public safety licensees are not afforded the right to accept or reject the activation of a proposed base or fixed station or to unilaterally require changes in its operating parameters. The principal purposes of notification are to:

- (1) Allow a public safety licensee to advise the 746–757, 758–763, 776–787, or 788–793 MHz band licensee whether it believes a proposed base or fixed station will generate unacceptable interference;
- (2) Permit 746–757, 758–763, 776–787, and 788–793 MHz band licensees to make voluntary changes in base or fixed station parameters when a public safety licensee alerts them to possible interference; and,
- (3) Rapidly identify the source if interference is encountered when the base or fixed station is activated.

(c) *Public Safety Information Exchange.*

(1) Upon request by a 746–757, 758–763, 776–787, or 788–793 MHz band licensee, public safety licensees authorized to operate radio systems in the 763–775 and 793–805 MHz bands shall provide the operating parameters of their radio system to the 746–757, 758–763, 776–787, or 788–793 MHz band licensee.

(2) Public safety licensees who perform the information exchange described in this section must notify the appropriate 746–757, 758–763, 776–787, or

788–793 MHz band licensees prior to any technical changes to their radio system.

[72 FR 27713, May 16, 2007, as amended at 72 FR 67578, Nov. 29, 2007]

Subpart S—Regulations Governing Licensing and Use of Frequencies in the 806–824, 851–869, 896–901, and 935–940 MHz Bands

§ 90.601 Scope.

This subpart sets out the regulations governing the licensing and operations of all systems operating in the 806–824/851–869 MHz and 896–901/935–940 MHz bands. It includes eligibility requirements, and operational and technical standards for stations licensed in these bands. It also supplements the rules regarding application procedures contained in part 1, subpart F of this chapter. The rules in this subpart are to be read in conjunction with the applicable requirements contained elsewhere in this part; however, in case of conflict, the provisions of this subpart shall govern with respect to licensing and operation in these frequency bands.

[63 FR 68967, Dec. 14, 1998]

APPLICATION FOR AUTHORIZATIONS

§ 90.603 Eligibility.

The following persons are eligible for licensing in the 806–824 MHz, 851–869 MHz, 896–901 MHz, and 935–940 MHz Bands.

(a) Any person eligible for licensing under subparts B, C, D, or E of this part.

(b) Any person proposing to provide communications service to any person eligible for licensing under subparts B or C of this part on a not-for-profit, cost-shared basis.

(c) Any person eligible under this part and proposing to provide on a commercial basis base station ancillary facilities as a Specialized Mobile Radio Service System operator, for the use of individuals, federal government agencies and persons eligible for licensing under subparts B or C of this part.

[47 FR 41032, Sept. 16, 1982, as amended at 53 FR 1025, Jan. 15, 1988; 60 FR 15495, Mar. 24, 1995; 62 FR 18934, Apr. 17, 1997]

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§ 90.605 Forms to be used.

Applications for conventional and trunked radio facilities must be prepared on FCC Form 601 and must be submitted or filed in accordance with § 90.127 and part 1, subpart F of this chapter.

[63 FR 68967, Dec. 14, 1998]

§ 90.607 Supplemental information to be furnished by applicants for facilities under this subpart.

(a) Except for applicants for SMR licenses, all applicants for conventional radio systems must:

(1) List all radio systems licensed to them or proposed by them within 64 km (40 mi.) from the location of the base station transmitter site of the facility for which they have applied.

(2) Specify the number of mobile units to be placed in operation upon grant of the authorization and the number of such units that will be placed in operation within 8 months of the date of grant.

(b) Except for applicants for SMR licenses, all applicants for trunked systems must:

(1) List all radio systems licensed to them within 64 km (40 mi.) from the location of the base station transmitter site of the facility for which they have applied;

(2) Specify the number of vehicular and portable mobile units and control stations to be placed in operation within the term of the license.

(c) [Reserved]

(d) All applicants for frequencies governed by this subpart are subject to the frequency coordination requirements of § 90.175(b) except applicants requesting frequencies for EA-based SMR operations in the 806–824 MHz/851–869 MHz band or 896–901 MHz/935–940 MHz band.

[47 FR 41032, Sept. 16, 1982, as amended at 49 FR 36377, Sept. 17, 1984; 51 FR 14999, Apr. 22, 1986; 59 FR 59966, Nov. 21, 1994; 63 FR 68967, Dec. 14, 1998; 69 FR 67838, Nov. 22, 2004; 70 FR 61061, Oct. 20, 2005]

§ 90.609 Special limitations on amendment of applications for assignment or transfer of authorizations for radio systems above 800 MHz.

(a) [Reserved]

(b) A license to operate a conventional or trunked radio system may

not be assigned or transferred prior to the completion of construction of the facility. However, the Commission may give its consent to the assignment or transfer of control of such a license prior to the completion of construction where:

(1) The assignment or transfer does not involve a substantial change in ownership or control of the authorized radio facilities; or,

(2) The assignment or transfer is involuntary due to the licensee's insolvency, bankruptcy, incapacity, or death.

(c) Licensees of constructed systems in any category are permitted to make partial assignments of an authorized grant to an applicant proposing to create a new system or to an existing licensee that has loaded its system to 70 mobiles per channel and is expanding that system. An applicant authorized to expand an existing system or to create a new system with frequencies from any category obtained through partial assignment will receive the assignor's existing license expiration date and loading deadline for the frequencies that are assigned. A licensee that makes a partial assignment of a station's frequencies will not be authorized to obtain additional frequencies for that station for a period of one year from the date of the partial assignment.

(d) A constructed system originally licensed in the General Category that is authorized to operate in the conventional mode may be combined with an existing SMR system above 800 MHz authorized to operate in the trunked mode by assignment of an authorized grant of the General Category station to the SMR station.

[47 FR 41032, Sept. 16, 1982, as amended at 55 FR 28029, July 9, 1990; 58 FR 44962, Aug. 25, 1993; 61 FR 6155, Feb. 16, 1996; 63 FR 68967, Dec. 14, 1998; 69 FR 67838, Nov. 22, 2004]

POLICIES GOVERNING THE PROCESSING OF APPLICATIONS AND THE SELECTION AND ASSIGNMENT OF FREQUENCIES FOR USE IN THE 806–824 MHz, 851–869 MHz, 896–901 MHz, AND 935–940 MHz BANDS

§ 90.613 Frequencies available.

The following table indicates the channel designations of frequencies

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available for assignment to eligible applicants under this subpart. Frequencies shall be assigned in pairs, with mobile and control station transmitting frequencies taken from the 806–824 MHz band with corresponding base station frequencies being 45 MHz higher and taken from the 851–869 MHz band, or with mobile and control station frequencies taken from the 896–901 MHz band with corresponding base station frequencies being 39 MHz higher and taken from the 935–940 MHz band. Only the base station transmitting frequency of each pair is listed in the following tables.

TABLE OF 806–824/851–869 MHz CHANNEL DESIGNATIONS

Channel No.	Base frequency (MHz)
1	851.0125
2 .....	.0375
3 .....	.0500
4 .....	.0625
5 .....	.0750
6 .....	.0875
7 .....	.1000
8 .....	.1125
9 .....	.1250
10 .....	.1375
11 .....	.1500
12 .....	.1625
13 .....	.1750
14 .....	.1875
15 .....	.2000
16 .....	.2125
17 .....	.2250
18 .....	.2375
19 .....	.2500
20 .....	.2625
21 .....	.2750
22 .....	.2875
23 .....	.3000
24 .....	.3125
25 .....	.3250
26 .....	.3375
27 .....	.3500
28 .....	.3625
29 .....	.3750
30 .....	.3875
31 .....	.4000
32 .....	.4125
33 .....	.4250
34 .....	.4375
35 .....	.4500
36 .....	.4625
37 .....	.4750
38 .....	.4875
39 .....	.5125
40 .....	.5375
41 .....	.5500
42 .....	.5625
43 .....	.5750
44 .....	.5875
45 .....	.6000
46 .....	.6125
47 .....	.6250
48 .....	.6375

TABLE OF 806–824/851–869 MHz CHANNEL DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
49 .....	.6500
50 .....	.6625
51 .....	.6750
52 .....	.6875
53 .....	.7000
54 .....	.7125
55 .....	.7250
56 .....	.7375
57 .....	.7500
58 .....	.7625
59 .....	.7750
60 .....	.7875
61 .....	.8000
62 .....	.8125
63 .....	.8250
64 .....	.8375
65 .....	.8500
66 .....	.8625
67 .....	.8750
68 .....	.8875
69 .....	.9000
70 .....	.9125
71 .....	.9250
72 .....	.9375
73 .....	.9500
74 .....	.9625
75 .....	.9750
76 .....	.9875
77	852.0125
78 .....	.0375
79 .....	.0500
80 .....	.0625
81 .....	.0750
82 .....	.0875
83 .....	.1000
84 .....	.1125
85 .....	.1250
86 .....	.1375
87 .....	.1500
88 .....	.1625
89 .....	.1750
90 .....	.1875
91 .....	.2000
92 .....	.2125
93 .....	.2250
94 .....	.2375
95 .....	.2500
96 .....	.2625
97 .....	.2750
98 .....	.2875
99 .....	.3000
100 .....	.3125
101 .....	.3250
102 .....	.3375
103 .....	.3500
104 .....	.3625
105 .....	.3750
106 .....	.3875
107 .....	.4000
108 .....	.4125
109 .....	.4250
110 .....	.4375
111 .....	.4500
112 .....	.4625
113 .....	.4750
114 .....	.4875
115 .....	.5125
116 .....	.5375
117 .....	.5500

TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
118 .....	.5625
119 .....	.5750
120 .....	.5875
121 .....	.6000
122 .....	.6125
123 .....	.6250
124 .....	.6375
125 .....	.6500
126 .....	.6625
127 .....	.6750
128 .....	.6875
129 .....	.7000
130 .....	.7125
131 .....	.7250
132 .....	.7375
133 .....	.7500
134 .....	.7625
135 .....	.7750
136 .....	.7875
137 .....	.8000
138 .....	.8125
139 .....	.7375
140 .....	.8375
141 .....	.8500
142 .....	.8625
143 .....	.8750
144 .....	.8875
145 .....	.9000
146 .....	.9125
147 .....	.9250
148 .....	.9375
149 .....	.9500
150 .....	.9625
151 .....	.9750
152 .....	.9875
153	853.0125
154 .....	.0375
155 .....	.0500
156 .....	.0625
157 .....	.0750
158 .....	.0875
159 .....	.1000
160 .....	.1125
161 .....	.1250
162 .....	.1375
163 .....	.1500
164 .....	.1625
165 .....	.1750
166 .....	.1875
167 .....	.2000
168 .....	.2125
169 .....	.2250
170 .....	.2375
171 .....	.2500
172 .....	.2625
173 .....	.2750
174 .....	.2875
175 .....	.3000
176 .....	.3125
177 .....	.3250
178 .....	.3375
179 .....	.3500
180 .....	.3625
181 .....	.3750
182 .....	.3875
183 .....	.4000
184 .....	.4125
185 .....	.4250
186 .....	.4375

TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
187 .....	.4500
188 .....	.4625
189 .....	.4750
190 .....	.4875
191 .....	.5000
192 .....	.5125
193 .....	.5250
194 .....	.5375
195 .....	.5500
196 .....	.5625
197 .....	.5750
198 .....	.5875
199 .....	.6000
200 .....	.6125
201 .....	.6250
202 .....	.6375
203 .....	.6500
204 .....	.6625
205 .....	.6750
206 .....	.6875
207 .....	.7000
208 .....	.7125
209 .....	.7250
210 .....	.7375
211 .....	.7500
212 .....	.7625
213 .....	.7750
214 .....	.7875
215 .....	.8000
216 .....	.8125
217 .....	.8250
218 .....	.8375
219 .....	.8500
220 .....	.8625
221 .....	.8750
222 .....	.8875
223 .....	.9000
224 .....	.9125
225 .....	.9250
226 .....	.9375
227 .....	.9500
228 .....	.9625
229 .....	.9750
230 .....	.9875
231	854.0125
232 .....	.0375
233 .....	.0625
234 .....	.0875
235 .....	.1125
236 .....	.1375
237 .....	.1625
238 .....	.1875
239 .....	.2125
240 .....	.2375
241 .....	.2625
242 .....	.2875
243 .....	.3125
244 .....	.3375
245 .....	.3625
246 .....	.3875
2474125
2484375
2494625
2504875
2515125
2525375
2535625
2545875
2556125

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**TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued**

Channel No.	Base frequency (MHz)
256 .....	.6375
257 .....	.6625
258 .....	.6875
259 .....	.7125
260 .....	.7375
261 .....	.7625
262 .....	.7875
263 .....	.8125
264 .....	.8375
265 .....	.8625
266 .....	.8875
267 .....	.9125
268 .....	.9375
269 .....	.9625
270 .....	.9875
271	855.0125
272 .....	.0375
273 .....	.0625
274 .....	.0875
275 .....	.1125
276 .....	.1375
277 .....	.1625
278 .....	.1875
279 .....	.2125
280 .....	.2375
281 .....	.2625
282 .....	.2875
283 .....	.3125
284 .....	.3375
285 .....	.3625
286 .....	.3875
287 .....	.4125
288 .....	.4375
289 .....	.4625
290 .....	.4875
291 .....	.5125
292 .....	.5375
293 .....	.5625
294 .....	.5875
295 .....	.6125
296 .....	.6375
297 .....	.6625
298 .....	.6875
299 .....	.7125
300 .....	.7375
301 .....	.7625
302 .....	.7875
303 .....	.8125
304 .....	.8375
305 .....	.8625
306 .....	.8875
307 .....	.9125
308 .....	.9375
309 .....	.9625
310 .....	.9875
311	856.0125
312 .....	.0375
313 .....	.0625
314 .....	.0875
315 .....	.1125
316 .....	.1375
317 .....	.1625
318 .....	.1875
319 .....	.2125
320 .....	.2375
321 .....	.2625
322 .....	.2875
323 .....	.3125
324 .....	.3375

**TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued**

Channel No.	Base frequency (MHz)
325 .....	.3625
326 .....	.3875
327 .....	.4125
328 .....	.4375
329 .....	.4625
330 .....	.4875
331 .....	.5125
332 .....	.5375
333 .....	.5625
334 .....	.5875
335 .....	.6125
336 .....	.6375
337 .....	.6625
338 .....	.6875
339 .....	.7125
340 .....	.7375
341 .....	.7625
342 .....	.7875
343 .....	.8125
344 .....	.8375
345 .....	.8625
346 .....	.8875
347 .....	.9125
348 .....	.9375
349 .....	.9625
350 .....	.9875
351	857.0125
352 .....	.0375
353 .....	.0625
354 .....	.0875
355 .....	.1125
356 .....	.1375
357 .....	.1625
358 .....	.1875
359 .....	.2125
360 .....	.2375
361 .....	.2625
362 .....	.2875
363 .....	.3125
364 .....	.3375
365 .....	.3625
366 .....	.3875
367 .....	.4125
368 .....	.4375
369 .....	.4625
370 .....	.4875
371 .....	.5125
372 .....	.5375
373 .....	.5625
374 .....	.5875
375 .....	.6125
376 .....	.6375
377 .....	.6625
378 .....	.6875
379 .....	.7125
380 .....	.7375
381 .....	.7625
382 .....	.7875
383 .....	.8125
384 .....	.8375
3858625
3868875
3879125
3889375
3899625
3909875
391	858.0125
3920375
3930625

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TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
394	.0875
395	.1125
396	.1375
397	.1625
398	.1875
399	.2125
400	.2375
401	.2625
402	.2875
403	.3125
404	.3375
405	.3625
406	.3875
407	.4125
408	.4375
409	.4625
410	.4875
411	.5125
412	.5375
413	.5625
414	.5875
415	.6125
416	.6375
417	.6625
418	.6875
419	.7125
420	.7375
421	.7625
422	.7875
423	.8125
424	.8375
425	.8625
426	.8875
427	.9125
428	.9375
429	.9625
430	.9875
431	859.0125
432	.0375
433	.0625
434	.0875
435	.1125
436	.1375
437	.1625
438	.1875
439	.2125
440	.2375
441	.2625
442	.2875
443	.3125
444	.3375
445	.3625
446	.3875
447	.4125
448	.4375
449	.4625
450	.4875
451	.5125
452	.5375
453	.5625
454	.5875
455	.6125
456	.6375
457	.6625
458	.6875
459	.7125
460	.7375
461	.7625
462	.7875

TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
463	.8125
464	.8375
465	.8625
466	.8875
467	.9125
468	.9375
469	.9625
470	.9875
471	860.0125
472	.0375
473	.0625
474	.0875
475	.1125
476	.1375
477	.1625
478	.1875
479	.2125
480	.2375
481	.2625
482	.2875
483	.3125
484	.3375
485	.3625
486	.3875
487	.4125
488	.4375
489	.4625
490	.4875
491	.5125
492	.5375
493	.5625
494	.5875
495	.6125
496	.6375
497	.6625
498	.6875
499	.7125
500	.7375
501	.7625
502	.7875
503	.8125
504	.8375
505	.8625
506	.8875
507	.9125
508	.9375
509	.9625
510	.9875
511	861.0125
512	.0375
513	.0625
514	.0875
515	.1125
516	.1375
517	.1625
518	.1875
519	.2125
520	.2375
521	.2625
522	.2875
523	.3125
524	.3375
525	.3625
526	.3875
527	.4125
528	.4375
529	.4625
530	.4875
531	.5125

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TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
532 .....	.5375
533 .....	.5625
534 .....	.5875
535 .....	.6125
536 .....	.6375
537 .....	.6625
538 .....	.6875
539 .....	.7125
540 .....	.7375
541 .....	.7625
542 .....	.7875
543 .....	.8125
544 .....	.8375
545 .....	.8625
546 .....	.8875
547 .....	.9125
548 .....	.9375
549 .....	.9625
550 .....	.9875
551	862.0125
552 .....	.0375
553 .....	.0625
554 .....	.0875
555 .....	.1125
556 .....	.1375
557 .....	.1625
558 .....	.1875
559 .....	.2125
560 .....	.2375
561 .....	.2625
562 .....	.2875
563 .....	.3125
564 .....	.3375
565 .....	.3625
566 .....	.3875
567 .....	.4125
568 .....	.4375
569 .....	.4625
570 .....	.4875
571 .....	.5125
572 .....	.5375
573 .....	.5625
574 .....	.5875
575 .....	.6125
576 .....	.6375
577 .....	.6625
578 .....	.6875
579 .....	.7125
580 .....	.7375
581 .....	.7625
582 .....	.7875
583 .....	.8125
584 .....	.8375
585 .....	.8625
586 .....	.8875
587 .....	.9125
588 .....	.9375
589 .....	.9625
590 .....	.9875
591	863.0125
592 .....	.0375
593 .....	.0625
594 .....	.0875
595 .....	.1125
596 .....	.1375
597 .....	.1625
598 .....	.1875
599 .....	.2125
600 .....	.2375

TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
601 .....	.2625
602 .....	.2875
603 .....	.3125
604 .....	.3375
605 .....	.3625
606 .....	.3875
607 .....	.4125
608 .....	.4375
609 .....	.4625
610 .....	.4875
611 .....	.5125
612 .....	.5375
613 .....	.5625
614 .....	.5875
615 .....	.6125
616 .....	.6375
617 .....	.6625
618 .....	.6875
619 .....	.7125
620 .....	.7375
621 .....	.7625
622 .....	.7875
623 .....	.8125
624 .....	.8375
625 .....	.8625
626 .....	.8875
627 .....	.9125
628 .....	.9375
629 .....	.9625
630 .....	.9875
631	864.0125
632 .....	.0375
633 .....	.0625
634 .....	.0875
635 .....	.1125
636 .....	.1375
637 .....	.1625
638 .....	.1875
639 .....	.2125
640 .....	.2375
641 .....	.2625
642 .....	.2875
643 .....	.3125
644 .....	.3375
645 .....	.3625
646 .....	.3875
647 .....	.4125
648 .....	.4375
649 .....	.4625
650 .....	.4875
651 .....	.5125
652 .....	.5375
653 .....	.5625
654 .....	.5875
655 .....	.6125
656 .....	.6375
657 .....	.6625
658 .....	.6875
659 .....	.7125
660 .....	.7375
661 .....	.7625
662 .....	.7875
663 .....	.8125
664 .....	.8375
665 .....	.8625
666 .....	.8875
667 .....	.9125
668 .....	.9375
669 .....	.9625

TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
670 .....	.9875
671	865.0125
672 .....	.0375
673 .....	.0625
674 .....	.0875
675 .....	.1125
676 .....	.1375
677 .....	.1625
678 .....	.1875
679 .....	.2125
680 .....	.2375
681 .....	.2625
682 .....	.2875
683 .....	.3125
684 .....	.3375
685 .....	.3625
686 .....	.3875
687 .....	.4125
688 .....	.4375
689 .....	.4625
690 .....	.4875
691 .....	.5125
692 .....	.5375
693 .....	.5625
694 .....	.5875
695 .....	.6125
696 .....	.6375
697 .....	.6625
698 .....	.6875
699 .....	.7125
700 .....	.7375
701 .....	.7625
702 .....	.7875
703 .....	.8125
704 .....	.8375
705 .....	.8625
706 .....	.8875
707 .....	.9125
708 .....	.9375
709 .....	.9625
710 .....	.9875
711	866.0125
712 .....	.0375
713 .....	.0625
714 .....	.0875
715 .....	.1125
716 .....	.1375
717 .....	.1625
718 .....	.1875
719 .....	.2125
720 .....	.2375
721 .....	.2625
722 .....	.2875
723 .....	.3125
724 .....	.3375
725 .....	.3625
726 .....	.3875
727 .....	.4125
728 .....	.4375
729 .....	.4625
730 .....	.4875
731 .....	.5125
732 .....	.5375
733 .....	.5625
734 .....	.5875
735 .....	.6125
736 .....	.6375
737 .....	.6625
738 .....	.6875

TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base frequency (MHz)
739 .....	.7125
740 .....	.7375
741 .....	.7625
742 .....	.7875
743 .....	.8125
744 .....	.8375
745 .....	.8625
746 .....	.8875
747 .....	.9125
748 .....	.9375
749 .....	.9625
750 .....	.9875
751	867.0125
752 .....	.0375
753 .....	.0625
754 .....	.0875
755 .....	.1125
756 .....	.1375
757 .....	.1625
758 .....	.1875
759 .....	.2125
760 .....	.2375
761 .....	.2625
762 .....	.2875
763 .....	.3125
764 .....	.3375
765 .....	.3625
766 .....	.3875
767 .....	.4125
768 .....	.4375
769 .....	.4625
770 .....	.4875
771 .....	.5125
772 .....	.5375
773 .....	.5625
774 .....	.5875
775 .....	.6125
776 .....	.6375
777 .....	.6625
778 .....	.6875
779 .....	.7125
780 .....	.7375
781 .....	.7625
782 .....	.7875
783 .....	.8125
784 .....	.8375
785 .....	.8625
786 .....	.8875
787 .....	.9125
788 .....	.9375
789 .....	.9625
790 .....	.9875
791	868.0125
792 .....	.0375
793 .....	.0625
794 .....	.0875
795 .....	.1125
796 .....	.1375
797 .....	.1625
798 .....	.1875
7992125
8002375
8012625
8022875
8033125
8043375
8053625
8063875
8074125

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**TABLE OF 806–824/851–869 MHz CHANNEL
DESIGNATIONS—Continued**

Channel No.	Base frequency (MHz)
808 .....	.4375
809 .....	.4625
810 .....	.4875
811 .....	.5125
812 .....	.5375
813 .....	.5625
814 .....	.5875
815 .....	.6125
816 .....	.6375
817 .....	.6625
818 .....	.6875
819 .....	.7125
820 .....	.7375
821 .....	.7625
822 .....	.7875
823 .....	.8125
824 .....	.8375
825 .....	.8625
826 .....	.8875
827 .....	.9125
828 .....	.9375
829 .....	.9625
830 .....	.9875

**TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS**

Channel No.	Base Frequency (MHz)
1	935.0125
2 .....	.0250
3 .....	.0375
4 .....	.0500
5 .....	.0625
6 .....	.0750
7 .....	.0875
8 .....	.1000
9 .....	.1125
10 .....	.1250
11 .....	.1375
12 .....	.1500
13 .....	.1625
14 .....	.1750
15 .....	.1875
16 .....	.2000
17 .....	.2125
18 .....	.2250
19 .....	.2375
20 .....	.2500
21 .....	.2625
22 .....	.2750
23 .....	.2875
24 .....	.3000
25 .....	.3125
26 .....	.3250
27 .....	.3375
28 .....	.3500
29 .....	.3625
30 .....	.3750
31 .....	.3875
32 .....	.4000
33 .....	.4125
34 .....	.4250
35 .....	.4375
36 .....	.4500
37 .....	.4625

**TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS—Continued**

Channel No.	Base Frequency (MHz)
38 .....	.4750
39 .....	.4875
40 .....	.5000
41 .....	.5125
42 .....	.5250
43 .....	.5375
44 .....	.5500
45 .....	.5625
46 .....	.5750
47 .....	.5875
48 .....	.6000
49 .....	.6125
50 .....	.6250
51 .....	.6375
52 .....	.6500
53 .....	.6625
54 .....	.6750
55 .....	.6875
56 .....	.7000
57 .....	.7125
58 .....	.7250
59 .....	.7375
60 .....	.7500
61 .....	.7625
62 .....	.7750
63 .....	.7875
64 .....	.8000
65 .....	.8125
66 .....	.8250
67 .....	.8375
68 .....	.8500
69 .....	.8625
70 .....	.8750
71 .....	.8875
72 .....	.9000
73 .....	.9125
74 .....	.9250
75 .....	.9375
76 .....	.9500
77 .....	.9625
78 .....	.9750
79 .....	.9875
80	936.0000
81 .....	.0125
82 .....	.0250
83 .....	.0375
84 .....	.0500
85 .....	.0625
86 .....	.0750
87 .....	.0875
88 .....	.1000
89 .....	.1125
90 .....	.1250
91 .....	.1375
92 .....	.1500
93 .....	.1625
94 .....	.1750
95 .....	.1875
96 .....	.2000
97 .....	.2125
982250
992375
1002500
1012625
1022750
1032875
1043000
1053125
1063250

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TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base Frequency (MHz)
107 .....	.3375
108 .....	.3500
109 .....	.3625
110 .....	.3750
111 .....	.3875
112 .....	.4000
113 .....	.4125
114 .....	.4250
115 .....	.4375
116 .....	.4500
117 .....	.4625
118 .....	.4750
119 .....	.4875
120 .....	.5000
121 .....	.5125
122 .....	.5250
123 .....	.5375
124 .....	.5500
125 .....	.5625
126 .....	.5750
127 .....	.5875
128 .....	.6000
129 .....	.6125
130 .....	.6250
131 .....	.6375
132 .....	.6500
133 .....	.6625
134 .....	.6750
135 .....	.6875
136 .....	.7000
137 .....	.7125
138 .....	.7250
139 .....	.6375
140 .....	.7500
141 .....	.7625
142 .....	.7750
143 .....	.7875
144 .....	.8000
145 .....	.8125
146 .....	.8250
147 .....	.8375
148 .....	.8500
149 .....	.8625
150 .....	.8750
151 .....	.8875
152 .....	.9000
153 .....	.9125
154 .....	.9250
155 .....	.9375
156 .....	.9500
157 .....	.9625
158 .....	.9750
159 .....	.9875
160	937.0000
161 .....	.0125
162 .....	.0250
163 .....	.0375
164 .....	.0500
165 .....	.0625
166 .....	.0750
167 .....	.0875
168 .....	.1000
169 .....	.1125
170 .....	.1250
171 .....	.1375
172 .....	.1500
173 .....	.1625
174 .....	.1750
175 .....	.1875

TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base Frequency (MHz)
176 .....	.2000
177 .....	.2125
178 .....	.2250
179 .....	.2375
180 .....	.2500
181 .....	.2625
182 .....	.2750
183 .....	.2875
184 .....	.3000
185 .....	.3125
186 .....	.3250
187 .....	.3375
188 .....	.3500
189 .....	.3625
190 .....	.3750
191 .....	.3875
192 .....	.4000
193 .....	.4125
194 .....	.4250
195 .....	.4375
196 .....	.4500
197 .....	.4625
198 .....	.4750
199 .....	.4875
200 .....	.5000
201 .....	.5125
202 .....	.5250
203 .....	.5375
204 .....	.5500
205 .....	.5625
206 .....	.5750
207 .....	.5875
208 .....	.6000
209 .....	.6125
210 .....	.6250
211 .....	.6375
212 .....	.6500
213 .....	.6625
214 .....	.6750
215 .....	.6875
216 .....	.7000
217 .....	.7125
218 .....	.7250
219 .....	.7375
220 .....	.7500
221 .....	.7625
222 .....	.7750
223 .....	.7875
224 .....	.8000
225 .....	.8125
226 .....	.8250
227 .....	.8375
228 .....	.8500
229 .....	.8625
230 .....	.8750
231 .....	.8875
232 .....	.9000
233 .....	.9125
234 .....	.9250
235 .....	.9475
2369500
2379625
2389750
2399875
240	938.0000
2410125
2420250
2430375
2440500

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**TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS—Continued**

Channel No.	Base Frequency (MHz)
245 .....	.0625
246 .....	.0750
247 .....	.0875
248 .....	.1000
249 .....	.1125
250 .....	.1250
251 .....	.1375
252 .....	.1500
253 .....	.1625
254 .....	.1750
255 .....	.1875
256 .....	.2000
257 .....	.2125
258 .....	.2250
259 .....	.2375
260 .....	.2500
261 .....	.2625
262 .....	.2750
263 .....	.2875
264 .....	.3000
265 .....	.3125
266 .....	.3250
267 .....	.3375
268 .....	.3500
269 .....	.3625
270 .....	.3750
271 .....	.3875
272 .....	.4000
273 .....	.4125
274 .....	.4250
275 .....	.4375
276 .....	.4500
277 .....	.4625
278 .....	.4750
279 .....	.4875
280 .....	.5000
281 .....	.5125
282 .....	.5250
283 .....	.5375
284 .....	.5500
285 .....	.5625
286 .....	.5750
287 .....	.5875
288 .....	.6000
289 .....	.6125
290 .....	.6250
291 .....	.6375
292 .....	.6500
293 .....	.6625
294 .....	.6750
295 .....	.6875
296 .....	.7000
297 .....	.7125
298 .....	.7250
299 .....	.7375
300 .....	.7500
301 .....	.7625
302 .....	.7750
303 .....	.7875
304 .....	.8000
305 .....	.8125
306 .....	.8250
307 .....	.8375
308 .....	.8500
309 .....	.8625
310 .....	.8750
311 .....	.8875
312 .....	.9000
313 .....	.9125

**TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS—Continued**

Channel No.	Base Frequency (MHz)
314 .....	.9250
315 .....	.9375
316 .....	.9500
317 .....	.9625
318 .....	.9750
319 .....	.9875
320	939.0000
321 .....	.0125
322 .....	.0250
323 .....	.0375
324 .....	.0500
325 .....	.0625
326 .....	.0750
327 .....	.0875
328 .....	.1000
329 .....	.1125
330 .....	.1250
331 .....	.1375
332 .....	.1500
333 .....	.1625
334 .....	.1750
335 .....	.1875
336 .....	.2000
337 .....	.2125
338 .....	.2250
339 .....	.2375
340 .....	.2500
341 .....	.2625
342 .....	.2750
343 .....	.2875
344 .....	.3000
345 .....	.3125
346 .....	.3250
347 .....	.3375
348 .....	.3500
349 .....	.3625
350 .....	.3750
351 .....	.3875
352 .....	.4000
353 .....	.4125
354 .....	.4250
355 .....	.4375
356 .....	.4500
357 .....	.4625
358 .....	.4750
359 .....	.4875
360 .....	.5000
361 .....	.5125
362 .....	.5250
363 .....	.5375
364 .....	.5500
365 .....	.5625
366 .....	.5750
367 .....	.5875
368 .....	.6000
369 .....	.6125
370 .....	.6250
371 .....	.6375
372 .....	.6500
373 .....	.6625
374 .....	.6750
375 .....	.6875
376 .....	.7000
377 .....	.7125
378 .....	.7250
379 .....	.7375
380 .....	.7500
381 .....	.7625
382 .....	.7750

TABLE OF 896–901/935–940 MHz CHANNEL
DESIGNATIONS—Continued

Channel No.	Base Frequency (MHz)
383 .....	.7875
384 .....	.8000
385 .....	.8125
386 .....	.8250
387 .....	.8375
388 .....	.8500
389 .....	.8625
390 .....	.8750
391 .....	.8875
392 .....	.9000
393 .....	.9125
394 .....	.9250
395 .....	.9375
396 .....	.9500
397 .....	.9625
398 .....	.9750
399 .....	.9875

[70 FR 56583, Sept. 28, 2005, as amended at 72 FR 35200, June 27, 2007]

§ 90.614 Segments of the 806–824/851–869 MHz band for non-border areas.

The 806–824/851–869 MHz band (“800 MHz band”) will be divided as follows at locations farther than 110 km (68.4 miles) from the U.S./Mexico border and 140 km (87 miles) from the U.S./Canadian border (“non-border areas”)

(a) 800 MHz high density cellular systems—as defined in § 90.7—are prohibited from operating on channels 1–550 in non-border areas.

(b) 800 MHz high density cellular systems—as defined in § 90.7—are permitted to operate on channels 551–830 in non-border areas.

(c) In the following counties and parishes, 800 MHz high density cellular systems—as defined in § 90.7—are permitted to operate on channels 411–830:

Alabama: Autauga, Baldwin, Barbour, Bibb, Blount, Bullock, Butler, Calhoun, Chambers, Cherokee, Chilton, Choctaw, Clarke, Clay, Cleburne, Coffee, Colbert, Conecuh, Coosa, Covington, Crenshaw, Cullman, Dale, Dallas, DeKalb, Elmore, Escambia, Etowah, Fayette, Franklin, Geneva, Greene, Hale, Henry, Houston, Jackson, Jefferson, Lamar, Lauderdale, Lawrence, Lee, Limestone, Lowndes, Macon, Madison, Marengo, Marion, Marshall, Mobile, Monroe, Montgomery, Morgan, Perry, Pickens, Pike, Randolph, Russell, Shelby, St Clair, Sumter, Talladega, Tallapoosa, Tusca-

loosa, Walker, Washington, Wilcox, Winston.

Florida: Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Madison, Nassau, Okaloosa, Santa Rosa, Taylor, Wakulla, Walton, Washington.

Georgia: Appling, Atkinson, Bacon, Baker, Baldwin, Banks, Barrow, Bartow, Ben Hill, Berrien, Bibb, Bleckley, Brantley, Brooks, Bryan, Bulloch, Burke, Butts, Calhoun, Camden, Candler, Carroll, Catoosa, Charlton, Chatham, Chattahoochee, Chattooga, Cherokee, Clarke, Clay, Clayton, Clinch, Cobb, Coffee, Colquitt, Columbia, Cook, Coweta, Crawford, Crisp, Dade, Dawson, Decatur, DeKalb, Dodge, Dooly, Dougherty, Douglas, Early, Echols, Effingham, Elbert, Emanuel, Evans, Fannin, Fayette, Floyd, Forsyth, Franklin, Fulton, Gilmer, Glascock, Glynn, Gordon, Grady, Greene, Gwinnett, Habersham, Hall, Hancock, Haralson, Harris, Hart, Heard, Henry, Houston, Irwin, Jackson, Jasper, Jeff Davis, Jefferson, Jenkins, Johnson, Jones, Lamar, Lanier, Laurens, Lee, Liberty, Lincoln, Long, Lowndes, Lumpkin, Macon, Madison, Marion, McDuffie, McIntosh, Meriwether, Miller, Mitchell, Monroe, Montgomery, Morgan, Murray, Muscogee, Newton, Oconee, Oglethorpe, Paulding, Peach, Pickens, Pierce, Pike, Polk, Pulaski, Putnam, Quitman, Rabun, Randolph, Richmond, Rockdale, Schley, Screven, Seminole, Spalding, Stephens, Stewart, Sumter, Talbot, Taliaferro, Tattnall, Taylor, Telfair, Terrell, Thomas, Tift, Toombs, Towns, Treutlen, Troup, Turner, Twiggs, Union, Upson, Walker, Walton, Ware, Warren, Washington, Wayne, Webster, Wheeler, White, Whitfield, Wilcox, Wilkes, Wilkinson, Worth.

Louisiana: Catahoula, Concordia, Madison, Tensas.

Mississippi: Adams, Alcorn, Amite, Attala, Calhoun, Carroll, Chickasaw, Choctaw, Claiborne, Clarke, Clay, Copiah, Covington, Forrest, Franklin, George, Greene, Grenada, Hancock, Harrison, Hinds, Holmes, Itawamba, Jackson, Jasper, Jefferson, Jefferson Davis, Jones, Kemper, Lamar, Lauderdale, Lawrence, Leake, Lee, Lincoln, Lowndes, Madison, Marion, Monroe, Montgomery, Neshoba, Newton,

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Noxubee, Oktibbeha, Pearl River, Perry, Pike, Pontotoc, Prentiss, Rankin, Scott, Simpson, Smith, Stone, Tippah, Tishomingo, Union, Walthall, Warren, Wayne, Webster, Wilkinson, Winston, Yazoo.

North Carolina: Cherokee, Clay, Graham, Jackson, Macon.

South Carolina: Abbeville, Aiken, Allendale, Anderson, Bamberg, Barnwell, Beaufort, Edgefield, Greenwood, Hampton, Jasper, McCormick, Oconee.

Tennessee: Bledsoe, Bradley, Franklin, Giles, Hamilton, Hardin, Lawrence, Lincoln, Marion, McMinn, McNairy, Meigs, Monroe, Moore, Polk, Rhea, Sequatchie, Wayne.

[69 FR 67843, Nov. 22, 2004, as amended at 70 FR 76708, Dec. 28, 2005; 72 FR 39760, July 20, 2007]

§ 90.615 Individual channels available in the General Category in 806–824/851–869 MHz band.

The General Category will consist of channels 231–260 and 511–550 at locations farther than 110 km (68.4 miles) from the U.S./Mexico border and 140 km (87 miles) from the U.S./Canadian border. All entities will be eligible for licensing on these channels except as described in paragraphs (a) and (b) of this section.

(a) In a given 800 MHz NPSPAC region, any channel in the 231–260 range which is vacated by a licensee relocating to channels 551–830 and which remains vacant after band reconfiguration will be available as follows:

(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;

(3) To all entities five years after release of a public notice announcing the completion of band reconfiguration in that region.

(b) In a given 800 MHz NPSPAC region, any channel in the 231–260 range which is vacated by a licensee relocating to channels 511–550 and remains

vacant after band reconfiguration will be available as follows:

(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;

(3) To all entities five years after release of a public notice announcing the completion of band reconfiguration in that region.

(c) Spectrum Block F1 consists of channels 236–260.

[70 FR 6759, Feb. 8, 2005, as amended at 70 FR 76708, Dec. 28, 2005]

§ 90.617 Frequencies in the 809.750–824/854.750–869 MHz, and 896–901/935–940 MHz bands available for trunked, conventional or cellular system use in non-border areas.

The following channels will be available at locations farther than 110 km (68.4 miles) from the U.S./Mexico border and 140 km (87 miles) from the U.S./Canadian border (“non-border areas”).

(a) Unless otherwise specified, the channels listed in Table 1 and paragraph (a)(1) of this section are available for to eligible applicants in the Public Safety Category which consists of licensees eligible in the Public Safety Pool of subpart B of this part. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These frequencies are available in non-border areas. Specialized Mobile Radio Systems will not be authorized in this category. These channels are available for intercategory sharing as indicated in § 90.621(e).

TABLE 1—PUBLIC SAFETY POOL 806–816/851–861 MHz BAND CHANNELS
[70 Channels]

Group No.	Channel Nos.
269	269–289–311–399–439
270	270–290–312–400–440
279	279–299–319–339–359
280	280–300–320–340–360
309	309–329–349–369–389
310	310–330–350–370–390
313	313–353–393–441–461
314	314–354–394–448–468

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TABLE 1—PUBLIC SAFETY POOL 806–816/851–861 MHZ BAND CHANNELS—Continued
[70 Channels]

Group No.	Channel Nos.
321	321–341–361–381–419
328	328–348–368–388–420
351	351–379–409–429–449
332	352–380–410–430–450
Single Channels	391, 392, 401, 408, 421, 428, 459, 460, 469, 470

(1) Channels numbers 1–230 are also available to eligible applicants in the Public Safety Category in non-border areas. The assignment of these channels will be done in accordance with the policies defined in the Report and Order of Gen. Docket No. 87–112 (See § 90.16). The following channels are available only for mutual aid purposes as defined in Gen. Docket No. 87–112: channels 1, 39, 77, 115, 153.

(2) Except as provided in paragraph (a)(3) of this section, the channels listed in Table 1A are available in the counties listed in § 90.614(c) to eligible applicants in the Public Safety Category. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

TABLE 1A—PUBLIC SAFETY POOL 806–816/851–861 MHZ BAND CHANNELS FOR COUNTIES IN SOUTHEASTERN U.S.
[70 Channels]

Group No.	Channel Nos.
261	261–313–324–335–353
262	262–314–325–336–354
265	265–285–315–333–351
266	266–286–316–334–352
269	269–289–311–322–357
270	270–290–312–323–355
271	271–328–348–358–368
279	279–299–317–339–359
280	280–300–318–340–360
309	309–319–329–349–369
310	310–320–330–350–370
321	321–331–341–361–372
Single Channels	326, 327, 332, 337, 338, 342, 343, 344, 345, 356

(3) The channels listed in Table 1B are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA to eligible applicants in the Public Safety Category. The center city coordinates of Atlanta, GA—for the purposes of the rule—are defined as 33°44'55" NL, 84°23'17" WL. 800 MHz high density cellular systems as defined in

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§ 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

TABLE 1B—PUBLIC SAFETY POOL 806–816/851–861 MHZ BAND CHANNELS FOR ATLANTA, GA
[70 Channels]

Group No.	Channel Nos.
261	261–313–324–335–353
262	262–314–325–336–354
269	269–289–311–322–357
270	270–290–312–323–355
279	279–299–319–339–359
280	280–300–320–340–360
285	285–315–333–351–379
286	286–316–334–352–380
309	309–329–349–369–389
310	310–330–350–370–390
321	321–331–341–361–381
328	328–348–358–368–388
Single Channels	317, 318, 326, 327, 332, 337, 338, 356, 371, 372

(b) Unless otherwise specified, the channels listed in Table 2 are available to applicants eligible in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These frequencies are available in non-border areas. Specialized Mobile Radio (SMR) systems will not be authorized on these frequencies. These channels are available for intercategory sharing as indicated in § 90.621(e).

TABLE 2—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 806–816/851–861 MHZ BAND CHANNELS
[100 Channels]

Group No.	Channel Nos.
322	322–362–402–442–482
323	323–363–403–443–483
324	324–364–404–444–484
325	325–365–405–445–485
326	326–366–406–446–486
327	327–367–407–447–487
342	342–382–422–462–502
343	343–383–423–463–503
344	344–384–424–464–504
345	345–385–425–465–505
346	346–386–426–466–506
347	347–387–427–467–507

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TABLE 2—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 806–816/851–861 MHz BAND CHANNELS—Continued
[100 Channels]

Group No.	Channel Nos.
Single Channels	261, 271, 281, 291, 301, 262, 272, 282, 292, 302, 263, 273, 283, 293, 303, 264, 274, 284, 294, 304, 265, 275, 285, 295, 305, 266, 276, 286, 296, 306, 267, 277, 287, 297, 307, 268, 278, 288, 298, 308

(1) Except as provided in paragraph (b)(2) of this section, the channels listed in Table 2A are available in the counties listed in § 90.614(c) to eligible applicants in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

TABLE 2A—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 806–816/851–861 MHz BAND FOR CHANNELS IN SOUTHEASTERN U.S.
[69 Channels]

	Channel Nos.
Single Channels	263, 264, 267, 268, 272, 273, 274, 275, 276, 277, 278, 281, 282, 283, 284, 287, 288, 291, 292, 293, 294, 295, 296, 297, 298, 301, 302, 303, 304, 305, 306, 307, 308, 346, 347, 362, 363, 364, 365, 366, 367, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410

(2) The channels listed in Table 2B are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA, to eligible applicants in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). The center city coordinates of Atlanta, GA—for the purposes of the rule—are defined as 33°44'55" NL, 84°23'17" WL. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available

for intercategory sharing as indicated in § 90.621(e).

TABLE 2B—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 806–816/851–861 MHz BAND FOR CHANNELS IN ATLANTA, GA
[69 Channels]

	Channel Nos.
Single Channels	263, 264, 265, 266, 267, 268, 271, 272, 273, 274, 275, 276, 277, 278, 281, 282, 283, 284, 287, 288, 291, 292, 293, 294, 295, 296, 297, 298, 301, 302, 303, 304, 305, 306, 307, 308, 342, 343, 344, 345, 346, 347, 362, 363, 364, 365, 366, 367, 382, 383, 384, 385, 386, 387, 391, 392, 393, 394, 399, 400, 401, 402, 403, 404, 405, 406, 407, 409, 410

(c) The channels listed in Table 3 are available to applicants eligible in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). These frequencies are available in non-border areas. Specialized Mobile Radio (SMR) systems will not be authorized on these frequencies. These channels are available for intercategory sharing as indicated in § 90.621(e).

For multi-channel systems, channels may be grouped vertically or horizontally as they appear in the following table.

TABLE 3—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 896–901/935–940 MHz BAND CHANNELS
[199 channels]

Channel Nos.	
11–12–13–14–15	211–212–213–214–215
16–17–18–19–20	216–217–218–219–220
31–32–33–34–35	231–232–233–234–235
36–37–38–39–40	236–237–238–239–240
51–52–53–54–55	251–252–253–254–255
56–57–58–59–60	256–257–258–259–260
71–72–73–74–75	271–272–273–274–275

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TABLE 3—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 896–901/935–940 MHZ BAND CHANNELS—Continued

[199 channels]

76–77–78–79–80	276–277–278–279–280
91–92–93–94–95	291–292–293–294–295
96–97–98–99–100	296–297–298–299–300
111–112–113–114–115.	311–312–313–314–315
116–117–118–119–120.	316–317–318–319–320
131–132–133–134–135.	331–332–333–334–335
136–137–138–139–140.	336–337–338–339–340
151–152–153–154–155.	351–352–353–354–355
156–157–158–159–160.	356–357–358–359–360
171–172–173–174–175.	371–372–373–374–375
176–177–178–179–180.	376–377–378–379–380
191–192–193–194–195.	391–392–393–394–395
196–197–198–199–200.	396–397–398–399

(d) Unless otherwise specified, the channels listed in Tables 4A and 4B are available only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. 800 MHz high density cellular systems, as defined in § 90.7, are prohibited on these channels. These frequencies are available in non-border areas. The spectrum blocks listed in Table 4A are available for EA-based services (as defined by § 90.681) prior to January 21, 2005. No new EA-based services will be authorized after January 21, 2005. EA-based licensees who operate non-high-density cellular systems prior to January 21, 2005, may choose to remain on these channels in the non-high-density cellular portion of the 800 MHz band (as defined in § 90.614). These licensees may continue to operate non-high-density cellular systems and will be grandfathered indefinitely. The channels listed in Table 4B will be available for site-based licensing after January 21, 2005, in any

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Economic Area where no EA-based licensee is authorized for these channels.

TABLE 4A—EA-BASED SMR CATEGORY 806–816/851–861 MHZ BAND CHANNELS, AVAILABLE PRIOR TO JANUARY 21, 2005

[80 Channels]

Spectrum block	Channel Nos.
G	311–351–391–431–471
H	312–352–392–432–472
I	313–353–393–433–473
J	314–354–394–434–474
K	315–355–395–435–475
L	316–356–396–436–476
M	317–357–397–437–477
N	318–358–398–438–478
O	331–371–411–451–491
P	332–372–412–452–492
Q	333–373–413–453–493
R	334–374–414–454–494
S	335–375–415–455–495
T	336–376–416–456–496
U	337–377–417–457–497
V	338–378–418–458–498

TABLE 4B—SMR CATEGORY 806–816/851–861 MHZ BAND CHANNELS, AVAILABLE AFTER JANUARY 21, 2005, FOR SITE-BASED LICENSING

[80 Channels]

Group No.	Channel Nos.
315	315–355–395–435–475
316	316–356–396–436–476
317	317–357–397–437–477
318	318–358–398–438–478
331	331–371–411–451–491
332	332–372–412–452–492
333	333–373–413–453–493
334	334–374–414–454–494
335	335–375–415–455–495
336	336–376–416–456–496
337	337–377–417–457–497
338	338–378–418–458–498
Single Channels	431, 432, 433, 434, 471, 472, 473, 474, 479, 480, 481, 488, 489, 490, 499, 500, 501, 508, 509, 510

(1) Except as provided in paragraph (d)(2) of this section, the channels listed in Table 4C are available in the counties listed in § 90.614(c) for non-high-density cellular operations only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

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TABLE 4C—SMR CATEGORY 806–816/851–861 MHz BAND CHANNELS AVAILABLE FOR SITE-BASED LICENSING IN SOUTHEASTERN U.S. AFTER JANUARY 21, 2005

[11 Channels]

	Channel Nos.
Single Channels	371, 373, 374, 375, 376, 377, 378, 395, 396, 397, 398

(2) The channels listed in Table 4D are available within 113 km (70 mi) of the center city coordinates of Atlanta, GA, only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. The center city coordinates of Atlanta, GA—for the purposes of this rule—are defined as 33°44'55" NL, 84°23'17" WL. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e). 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels. These channels are available for intercategory sharing as indicated in § 90.621(e).

TABLE 4D—SMR CATEGORY 806–816/851–861 MHz BAND CHANNELS AVAILABLE FOR SITE-BASED LICENSING IN ATLANTA, GA AFTER JANUARY 21, 2005

[11 Channels]

	Channel Nos.
Single Channels	373, 374, 375, 376, 377, 378, 395, 396, 397, 398, 408

(e) The Channels listed in § 90.614(b) and (c) are available to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. ESMR licensees which employ an 800 MHz high density cellular system, as defined in § 90.7, are permitted to operate on these channels in non-border areas. ESMR licensees authorized prior to January 21, 2005, may continue to operate, if they so choose, on the channels listed in Table 5. These licensees will be grandfathered indefinitely.

TABLE 5—ESMR CATEGORY 816–821 MHz BAND CHANNELS FOR CELLULAR OPERATIONS IN NON-BORDER AREAS AVAILABLE PRIOR TO JANUARY 21, 2005

[200 Channels]

Spectrum block	Channel Nos.
A	511 through 530.
B	531 through 590.
C	591 through 710.

(f) The channels listed in Tables 6 are available for operations only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. These frequencies are available in non-border areas. The spectrum blocks listed below are available for EA-based services according to § 90.681.

TABLE 6—SMR CATEGORY 896–901/935–940 MHz BAND CHANNELS

[200 channels]

Block	Channel Nos.
A	1–2–3–4–5–6–7–8–9–10
B	21–22–23–24–25–26–27–28–29–30
C	41–42–43–44–45–46–47–48–49–50
D	61–62–63–64–65–66–67–68–69–70
E	81–82–83–84–85–86–87–88–89–90
F	101–102–103–104–105–106–107–108–109–110
G	121–122–123–124–125–126–127–128–129–130
H	141–142–143–144–145–146–147–148–149–150
I	161–162–163–164–165–166–167–168–169–170
J	181–182–183–184–185–186–187–188–189–190
K	201–202–203–204–205–206–207–208–209–210
L	221–222–223–224–225–226–227–228–229–230
M	241–242–243–244–245–246–247–248–249–250
N	261–262–263–264–265–266–267–268–269–270
O	281–282–283–284–285–286–287–288–289–290
P	301–302–303–304–305–306–307–308–309–310
Q	321–322–323–324–325–326–327–328–329–330
R	341–342–343–344–345–346–347–348–349–350
S	361–362–363–364–365–366–367–368–369–370
T	381–382–383–384–385–386–387–388–389–390

(g) In a given NPSPAC region, channels below 471 listed in Tables 2 and 4B

which are vacated by licensees relocating to channels 551–830 and which remain vacant after band reconfiguration will be available as indicated in § 90.617(g)(1 through 3). The only exception will be for the counties listed in § 90.614(c). At locations greater than 113 km (70 mi) from the center city coordinates of Atlanta, GA within the counties listed in § 90.614(c), the channels listed in Tables 2A and 4C which are vacated by licensees relocating to channels 411–830 and which remain vacant after band reconfiguration will be available as indicated in § 90.617(g)(1 through 3). At locations within 113 km (70 mi) of the center city coordinates of Atlanta, GA, the channels listed in Tables 2B and 4D which are vacated by licensees relocating to channels 411–830 and which remain vacant after band reconfiguration will be available as follows:

(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;

(3) Five years after the release of a public notice announcing the completion of band reconfiguration in that region, these channels revert back to their original pool categories.

(h) In a given 800 MHz NPSPAC region—except for the counties listed in § 90.614(c)—channels below 471 listed in Tables 2 and 4B which are vacated by a licensee relocating to channels 511–550 and remain vacant after band reconfiguration will be available as follows:

(1) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

(2) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region;

(3) Five years after the release of a public notice announcing the comple-

tion of band reconfiguration in that region, these channels revert back to their original pool categories.

(i) Special Mobilized Radio Systems licensees who operate systems, other than 800 MHz high density cellular systems, on any of the public safety channels listed in Table 1 prior to January 21, 2005, are grandfathered and may continue to operate on these channels indefinitely. These grandfathered licensees will be prohibited from operating 800 MHz high density cellular systems as defined in § 90.7. Site-based licensees who are grandfathered on any of the public safety channels listed in Table 1 may modify their license only if they obtain concurrence from a certified public safety coordinator in accordance with § 90.175(c). Grandfathered EA-based licensees, however, are exempt from any of the frequency coordination requirements of § 90.175 as long as their operations remain within the Economic Area defined by their license in accordance with the requirements of § 90.683(a).

(j) Licensees operating 800 MHz high density cellular systems on the channels listed in § 90.614(a), prior to January 21, 2005, may elect to continue operating on these channels and will be permitted to continue operating 800 MHz high density cellular systems (as defined in § 90.7) in this portion of the band. These licensees will be grandfathered indefinitely subject to the provisions of §§ 90.673, 90.674 and 90.675.

(k) Licensees may operate systems other than 800 MHz high density cellular systems (as defined in § 90.7) on Channels 511–550 at any location vacated by an EA-based SMR licensee. For operations on these channels, unacceptable interference (as defined in § 22.970 of this chapter and § 90.672) will be deemed to occur only at sites where the following median desired signals are received (rather than those specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i). The minimum required median desired signal, as measured at the R.F. input of the receiver, will be as follows:

(1) Mobile units (except in Puerto Rico and the U.S. Virgin Islands):

(i) For channels 511 to 524—the minimum median desired signal levels

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specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 524 to 534—the minimum median desired signal level shall increase linearly from the values specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) to –70 dBm;

(iii) For channels 534 to 550—the minimum median desired signal level shall increase linearly from –70 dBm to –65 dBm.

(2) Portable units (except in Puerto Rico and the U.S. Virgin Islands):

(i) For channels 511 to 524—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 524 to 530—the minimum median desired signal level shall increase linearly from the values specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) to –80 dBm;

(iii) For channels 530 to 534—the minimum median desired signal level shall increase linearly from –80 dBm to –70 dBm;

(iv) For channels 534 to 550—the minimum median desired signal level shall increase linearly from –70 dBm to –65 dBm.

(3) Mobile units operating in Puerto Rico and the U.S. Virgin Islands:

(i) For channels 511 to 530—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 531 to 534—the minimum median desired signal level shall increase linearly from –80.2 dBm to –70 dBm;

(iii) For channels 534 to 550—the minimum median desired signal level shall increase linearly from –70 dBm to –65 dBm.

(4) Portable units operating in Puerto Rico and the U.S. Virgin Islands:

(i) For channels 511 to 530—the minimum median desired signal levels specified in § 22.970(a)(1)(i) of this chapter and § 90.672(a)(1)(i) shall apply;

(ii) For channels 531 to 534—the minimum median desired signal level shall increase linearly from –80 dBm to –70 dBm;

(iii) For channels 534 to 550—the minimum median desired signal level shall

increase linearly from –70 dBm to –65 dBm.

[69 FR 67843, Nov. 22, 2004, as amended at 70 FR 6760, Feb. 8, 2005; 70 FR 76708, Dec. 28, 2005; 72 FR 39760, July 20, 2007; 75 FR 35317, June 22, 2010; 76 FR 11683, Mar. 3, 2011]

§ 90.619 Operations within the U.S./Mexico and U.S./Canada border areas.

(a) *Use of frequencies in 800 MHz band in Mexico border region.* All operations in the 806–824/851–869 MHz band within 110 km (68.4 miles) of the U.S./Mexico border (“Mexico border region”) shall be in accordance with international agreements between the U.S. and Mexico. Channels 231–710 are offset 12.5 kHz lower in frequency than those specified in the table in § 90.613. Stations located on Mt. Lemmon, serving the Tucson, AZ area, will only be authorized offset frequencies.

(b) *Use of frequencies in 900 MHz Band in Mexico border region.* All operations in the 896–901/935–940 MHz band within the Mexico border region shall be in accordance with international agreements between the U.S. and Mexico.

(1) The channels listed in Table 1 below are available to applicants eligible in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). These frequencies are available within the Mexico border region. Specialized Mobile Radio (SMR) systems will not be authorized on these frequencies.

For multi-channel systems, channels may be grouped vertically or horizontally as they appear in the following table. Channels numbered above 200 may be used only subject to the power flux density limits stated in paragraph (a)(2) of this section:

TABLE 1—UNITED STATES/MEXICO BORDER AREA, BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 896–901/935–940 MHz BAND

[199 Channels]

Channel Nos.	
11–12–13–14–15	131–132–133–134–135
16–17–18–19–20	136–137–138–139–140

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TABLE 1—UNITED STATES/MEXICO BORDER AREA, BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 896–901/935–940 MHz BAND—Continued

[199 Channels]	
31–32–33–34–35	231–232–233–234–235
36–37–38–39–40	236–237–238–239–240
51–52–53–54–55	171–172–173–174–175
56–57–58–59–60	176–177–178–179–180
71–72–74–75	271–272–273–274–275
76–77–78–79–80	276–277–278–279–280
91–92–93–94–95	211–212–213–214–215
96–97–98–99–100	216–217–218–219–220
111–112–113–114–115	311–312–313–314–315
116–117–118–119–120	316–317–318–319–320
151–152–153–154–155	351–352–353–354–355
156–157–158–159–160	356–357–358–359–360
191–192–193–194–195	391–392–393–394–395
196–197–198–199–200	396–397–398–399
251–252–253–254–255	331–332–333–334–335
256–257–258–259–260	336–337–338–339–340
291–292–293–294–295	371–372–373–374–375
296–297–298–299–300	376–377–378–379–380

(2) The channels listed in Table 2 of this section are available for operations only to eligibles in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. These frequencies are available in the Mexico border region. The spectrum blocks listed in the table below are available for EA-based services according to § 90.681.

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TABLE 2—UNITED STATES-MEXICO BORDER AREA, SMR CATEGORY 896–901/935–940 MHz BAND

[200 Channels]	
Block	Channel Nos.
A	1–2–3–4–5–6–7–8–9–10
B	21–22–23–24–25–26–27–28–29–30
C	41–42–43–44–45–46–47–48–49–50
D	61–62–63–64–65–66–67–68–69–70
E	81–82–83–84–85–86–87–88–89–90
F	101–102–103–104–105–106–107–108–109–110
G	121–122–123–124–125–126–127–128–129–130
H	141–142–143–144–145–146–147–148–149–150
I	161–162–163–164–165–166–167–168–169–170
J	181–182–183–184–185–186–187–188–189–190
K	201–202–203–204–205–206–207–208–209–210
L	221–222–223–224–225–226–227–228–229–230
M	241–242–243–244–245–246–247–248–249–250
N	261–262–263–264–265–266–267–268–269–270
O	281–282–283–284–285–286–287–288–289–290
P	301–302–303–304–305–306–307–308–309–310
Q	321–322–323–324–325–326–327–328–329–330
R	341–342–343–344–345–346–347–348–349–350
S	361–362–363–364–365–366–367–368–369–370
T	381–382–383–384–385–386–387–388–389–390

Channels numbered above 200 may only be used subject to the power flux density limits at or beyond the Mexico border as stated in paragraph (4) of this section.

(3) The specific channels that are available for licensing in the band 896–901/935–940 MHz within the Mexico border region are subject to Effective Radiated Power (ERP) and Antenna Height limitations as indicated in Table 3 below.

TABLE 3—LIMITS OF EFFECTIVE RADIATED POWER (ERP) CORRESPONDING TO ANTENNA HEIGHTS OF BASE STATIONS IN THE 896–901/935–940 MHz BANDS WITHIN 110 KILOMETERS (68.4 MILES) OF THE MEXICAN BORDER

Antenna height above mean sea level		ERP in watts (maximum)
Meters	Feet	
0–503	0–1650	500
504–609	1651–2000	350
610–762	2001–2500	200
764–914	2501–3000	140
915–1066	3001–3500	100
1067–1219	3501–4000	75
1220–1371	4000–4500	70
1372–1523	4501–5000	65
Above 1523	Above 5000	5

(4) All channels in the 896–901/935–940 MHz band are available for assignment to U.S. stations within the Mexico border region if the maximum power flux density (pfd) of the station's transmitted signal at any point at or beyond the border does not exceed –107 dB (W/m²). The spreading loss must be calculated using the free space formula

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taking into account any antenna discrimination in the direction of the border. Authorizations for stations using channels allotted to Mexico on a primary basis will be secondary to Mexican operations and conditioned to require that licensees take immediate action to eliminate any harmful interference resulting from the station's transmitted signal exceeding -107 dB (W/m^2).

(c) *Use of 800 MHz Band in Canada Border Region.* All operations in the

806–824/851–869 MHz band within 140 km (87 miles) of the U.S./Canada border (“U.S./Canada border area”) shall be in accordance with international agreements between the U.S. and Canada.

(1) The U.S./Canada border area is divided into the following geographical regions (“Canada Border Regions”). U.S. primary channels are shown in the table by region. The remaining channels are primary to Canada (“Canada Primary channels”).

TABLE C1—GEOGRAPHICAL REGIONS

Region	Location (longitude)	U.S. primary channels
1	66° W–71° W (0–100 km from border)	1–260, 561–710, 772–790 and 792–830.
2	71° W–80°30' W (0–100 km from border)	1–170, 621–710 and 795–830.
3	80°30' W–85° W (0–100 km from border)	1–320, 501–710, 729–730, 732–750, 752–770, 772–790 and 792–830.
4	85° W–121°30' W (0–100 km from border)	1–260, 561–710, 772–790 and 792–830.
5	121°30' W–127° W (0–140 km from border)	1–260, 561–710, 772–790 and 792–830.
6	127° W–143° W (0–100 km from border)	1–260, 561–710, 772–790 and 792–830.
7A	66° W–71° W (100–140 km from border)	1–830.
7A	80°30' W–121°30' W (100–140 km from border)	1–830.
7B	71° W–80°30' W (100–140 km from border)	1–830.
8	127° W–143° W (100–140 km from border)	1–830.

(2) Stations authorized on U.S. primary channels in all Canada Border Regions, except Region 5, will be subject to the Effective Radiated Power (ERP) and Effective Antenna Height (EAH) limitations listed in Table C2. The Effective Antenna Height is calculated by subtracting the Assumed Average Terrain Elevation (AATE) listed in Table C3 from the antenna height above mean sea level.

TABLE C2—LIMITS OF EFFECTIVE RADIATED POWER (ERP) CORRESPONDING TO EFFECTIVE ANTENNA HEIGHTS (EAH) FOR REGIONS 1, 2, 3, 4, 6, 7 AND 8

Effective Antenna Height (EAH)		ERP watts (maximum)
Metres	Feet	
0–152	0–500	500
153–305	501–1000	125
306–457	1001–1500	40
458–609	1501–2000	20
610–914	2001–3000	10
915–1066	3001–3500	6
Above 1967	Above 3501	5

TABLE C3—ASSUMED AVERAGE TERRAIN ELEVATION (AATE) ALONG THE U.S.-CANADA BORDER

Longitude (Φ) (° West)	Latitude (Ω) (° North)	Assumed average terrain elevation			
		United States		Canada	
		Feet	Metres	Feet	Metres
65 ≤ Φ < 69	Ω < 45	0	0	0	0
"	45 ≤ Ω < 46	300	91	300	91
"	Ω ≥ 46	1000	305	1000	305
69 ≤ Φ < 73	All	2000	609	1000	305
73 ≤ Φ < 74	"	500	152	500	152
74 ≤ Φ < 78	"	250	76	250	76
78 ≤ Φ < 80	Ω < 43	250	76	250	76
"	Ω ≥ 43	500	152	500	152
80 ≤ Φ < 90	All	600	183	600	183
90 ≤ Φ < 98	"	1000	305	1000	305
98 ≤ Φ < 102	"	1500	457	1500	457
102 ≤ Φ < 108	"	2500	762	2500	762
108 ≤ Φ < 111	"	3500	1066	3500	1066
111 ≤ Φ < 113	"	4000	1219	3500	1066

TABLE C3—ASSUMED AVERAGE TERRAIN ELEVATION (AATE) ALONG THE U.S.-CANADA BORDER—
Continued

Longitude (Φ) (° West)	Latitude (Ω) (° North)	Assumed average terrain elevation			
		United States		Canada	
		Feet	Metres	Feet	Metres
113 ≤ Φ < 114	"	5000	1524	4000	1219
114 ≤ Φ < 121.5	"	3000	914	3000	914
121.5 ≤ Φ < 127	"	0	0	0	0
Φ ≥ 127	"	0	0	0	0
"	54 ≤ Ω < 56	500	152	1500	457
"	56 ≤ Ω < 58	0	0	2000	609
"	58 ≤ Ω < 60	4000	1219	2500	762
"	60 ≤ Ω < 62	1600	488	1600	488
"	62 ≤ Ω < 64	1000	305	2000	609
"	64 ≤ Ω < 66	750	228	750	228
"	66 ≤ Ω < 68	1500	457	500	152
"	68 ≤ Ω < 69.5	0	0	0	0
"	Ω ≥ 69.5				

(3) Stations authorized on U.S. primary channels in Canada Border Region 5 will be subject to the Effective Radiated Power (ERP) and Antenna Height Above Mean Sea Level limitations listed in Table C4.

TABLE C4—LIMITS OF EFFECTIVE RADIATED POWER (ERP) CORRESPONDING TO ANTENNA HEIGHT ABOVE MEAN SEA LEVEL FOR REGION 5

Antenna Height Above Mean Sea Level		ERP Watts (maximum)
Metres	Feet	
0–503	0–1650	500
504–609	1651–2000	350
610–762	2001–2500	200
763–914	2501–3000	140
915–1066	3001–3500	100
1067–1219	3501–4000	75
1220–1371	4001–4500	70
1372–1523	4501–5000	65
Above 1523	Above 5000	5

(4) Stations may be authorized on Canada Primary channels in the Canada Border Regions provided the maximum power flux density (PFD) per 25 kHz at or beyond the border does not exceed –107 dB(W/m²). Stations authorized on Canada Primary channels will be secondary to stations in Canada unless otherwise specified in an international agreement between the U.S. and Canada.

(5) Stations authorized to operate within 30 kilometers of the center city coordinates listed in Table C5 may operate according to the band plan for Canadian Border Regions 7A and 7B as indicated below.

TABLE C5—CITIES THAT ARE CONSIDERED TO FALL WITHIN CANADIAN BORDER REGION 7

Location	Coordinates		Canadian border region
	Latitude	Longitude	
Akron, Ohio	41°05'00.2" N	81°30'39.4" W	7A
Youngstown, Ohio	41°05'57.2" N	80°39'01.3" W	7A
Syracuse, New York	43°03'04.2" N	76°09'12.7" W	7B

(6) The channels listed in Table C6 and paragraph (c)(6)(i) of this section are available in the Canada Border Regions for non-cellular operations to eligible applicants in the Public Safety

Category which consists of licensees eligible in the Public Safety Pool of subpart B of this part. 800 MHz high density cellular systems as defined in § 90.7 are prohibited on these channels.

TABLE C6—PUBLIC SAFETY POOL 806–816/851–861 MHz BAND CHANNELS IN THE CANADA BORDER REGIONS

Canada Border Region	Channel Nos.	Total
Regions 1, 4, 5 and 6	231–260	30 Channels.
Region 2	See paragraph (c)(6)(i) of this section.	
Region 3	231–320, 501–508	90 Channels.
Regions 7A and 8	269, 289, 311, 399, 439, 270, 290, 312, 400, 440, 279, 299, 319, 339, 359, 280, 300, 320, 340, 360, 309, 329, 349, 369, 389, 310, 330, 350, 370, 390, 313, 353, 393, 441, 461, 314, 354, 394, 448, 468, 321, 341, 361, 381, 419, 328, 348, 368, 388, 420, 351, 379, 409, 429, 449, 352, 380, 410, 430, 450, 391, 392, 401, 408, 421, 428, 459, 460, 469, 470.	70 Channels.
Region 7B	231–260, 269, 289, 311, 399, 439, 270, 290, 312, 400, 440, 279, 299, 319, 339, 359, 280, 300, 320, 340, 360, 309, 329, 349, 369, 389, 310, 330, 350, 370, 390, 313, 353, 393, 441, 461, 314, 354, 394, 448, 468, 315, 355, 395, 435, 475, 316, 356, 396, 436, 476, 317, 357, 397, 437, 477, 318, 358, 398, 438, 478, 321, 341, 361, 381, 419, 328, 348, 368, 388, 420, 331, 371, 411, 451, 491, 332, 372, 412, 452, 492, 333, 373, 413, 453, 493, 334, 374, 414, 454, 494, 335, 375, 415, 455, 495, 336, 376, 416, 456, 496, 337, 377, 417, 457, 497, 338, 378, 418, 458, 498, 351, 379, 409, 429, 449, 352, 380, 410, 430, 450, 391, 392, 401, 408, 421, 428, 459, 460, 469, 470, 431, 432, 433, 434, 471, 472, 473, 474, 479, 480.	170 Channels.

(i) Channel numbers 1–230 are also available to eligible applicants in the Public Safety Category in the Canada Border Regions. The assignment of these channels will be done in accordance with the policies defined in the Report and Order of Gen. Docket No. 87–112 (See § 90.16). The following channels are available only for mutual aid purposes as defined in Gen. Docket No. 87–112: Channels 1, 39, 77, 115, 153.

(ii) [Reserved]

(7) The channels listed in Table C7 are available in the Canada Border Regions for the General Category. All entities will be eligible for licensing on these channels. 800 MHz high density cellular systems as defined in § 90.7 are permitted on these channels only as indicated in Table C7. The channels noted for Regions 1, 2, 3, 4, 5 and 6 where high density cellular systems are prohibited are all frequencies that are primary to Canada. Stations may be licensed on these Canada Primary channels according to paragraph (c)(4) of this section.

TABLE C7—GENERAL CATEGORY 806–821/851–866 MHz BAND CHANNELS IN THE CANADA BORDER REGIONS

Canada border region	General category channels where 800 MHz high density cellular systems are prohibited	General category channels where 800 MHz high density cellular systems are permitted
Regions 1, 4, 5 and 6	261–560	561–710
Region 2	231–620	621–710
Region 3	321–500	509–710
Regions 7A and 8	231–260, 511–550	None
Region 7B	511–550	None

(8) The channels listed in Table C8 are available in the Canada Border Regions to applicants eligible in the Industrial/Business Pool of subpart C of this part but exclude Special Mobilized Radio Systems as defined in § 90.603(c). 800 MHz cellular high density systems as defined in § 90.7 are prohibited on these channels.

TABLE C8—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 806–816/851–861 MHz BAND CHANNELS IN THE CANADA BORDER REGIONS

Canada Border Region	Channel Nos.	Total
Regions 1, 2, 3, 4, 5 and 6	None	0 Channels.

TABLE C8—BUSINESS/INDUSTRIAL/LAND TRANSPORTATION POOL 806–816/851–861 MHz BAND CHANNELS IN THE CANADA BORDER REGIONS—Continued

Canada Border Region	Channel Nos.	Total
Regions 7A, 7B and 8	261, 271, 281, 291, 301, 262, 272, 282, 292, 302, 263, 273, 283, 293, 303, 264, 274, 284, 294, 304, 265, 275, 285, 295, 305, 266, 276, 286, 296, 306, 267, 277, 287, 297, 307, 268, 278, 288, 298, 308, 322, 362, 402, 442, 482, 323, 363, 403, 443, 483, 324, 364, 404, 444, 484, 325, 365, 405, 445, 485, 326, 366, 406, 446, 486, 327, 367, 407, 447, 487, 342, 382, 422, 462, 502, 343, 383, 423, 463, 503, 344, 384, 424, 464, 504, 345, 385, 425, 465, 505, 346, 386, 426, 466, 506, 347, 387, 427, 467, 507.	100 Channels.

(9) The channels listed in Table C9 are available in the Canada Border Regions to applicants eligible in the SMR category—which consists of Specialized

Mobile Radio (SMR) stations and eligible end users. 800 MHz high density cellular systems, as defined in § 90.7, are prohibited on these channels.

TABLE C9—SMR CATEGORY 806–816/851–861 MHz CHANNELS AVAILABLE FOR SITE-BASED LICENSING IN THE CANADA BORDER REGIONS

Canada Border Region	Channel Nos.	Total
Regions 1, 2, 3, 4, 5 and 6	None	0 Channels.
Regions 7A and 8	315, 355, 395, 435, 475, 316, 356, 396, 436, 476, 317, 357, 397, 437, 477, 318, 358, 398, 438, 478, 331, 371, 411, 451, 491, 332, 372, 412, 452, 492, 333, 373, 413, 453, 493, 334, 374, 414, 454, 494, 335, 375, 415, 455, 495, 336, 376, 416, 456, 496, 337, 377, 417, 457, 497, 338, 378, 418, 458, 498, 431, 432, 433, 434, 471, 472, 473, 474, 479, 480, 481, 488, 489, 490, 499, 500, 501, 508, 509, 510.	80 Channels.
Region 7B	481, 488, 489, 490, 499, 500, 501, 508, 509, 510	10 Channels.

(10) The channels listed in Table C10 are available in the Canada Border Regions to applicants eligible in the SMR category—which consists of Specialized Mobile Radio (SMR) stations and eligible end users. ESMR licensees who employ 800 MHz high density cellular systems, as defined in § 90.7, are permitted

to operate on these channels. Some of the channels listed in Table C10 are primary to Canada as indicated in paragraph (c)(1) of this section. ESMR systems may be authorized on these Canada Primary channels according to paragraph (c)(4) of this section.

TABLE C10—ESMR CATEGORY 817–824/862–869 MHz CHANNELS AVAILABLE FOR 800 MHz HIGH DENSITY SYSTEMS

Canada Border Region	Channel Nos.	Total
Regions 1, 2, 3, 4, 5 and 6	711–830	120 Channels.
Regions 7A, 7B and 8	551–830	280 Channels.

(11) In Canada Border Regions 1, 2, 3, 4, 5 and 6, the following General Category channels are available for licensing to all entities except as described below in paragraphs (c)(11)(i) and (c)(11)(ii): in Regions 1, 4, 5 and 6, channels 261–560; in Region 2, channels 231–620 and in Region 3, channels 321–500.

(i) In a given 800 MHz NPSPAC region, the General Category channels listed paragraph (c)(11) of this section

which are vacated by licensees relocating to channels 711–830 and which remain vacant after band reconfiguration will be available for licensing as follows:

(A) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region;

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(B) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region; and

(C) To all entities five years after release of a public notice announcing the completion of band reconfiguration in that region.

(ii) The General Category channels listed in paragraph (c)(11) of this section are primary to Canada. Stations may be authorized on these Canada Primary channels according to paragraph (c)(4).

(12) In Canada Border Regions 7A, 7B and 8, the following channels will be available as described in paragraphs (c)(12)(i) and (c)(12)(ii) of this section: for Canada Border Regions 7A and 8, channels 231–260 and channels below 471 in Tables C8 and C9; for Canada Border Region 7B all channels in Tables C8 and C9.

(i) In a given 800 MHz NPSPAC region, the channels listed paragraph (c)(12) of this section which are vacated by licensees relocating to channels 511–830 and which remain vacant after band reconfiguration will be available as follows:

(A) Only to eligible applicants in the Public Safety Category until three years after the release of a public notice announcing the completion of band reconfiguration in that region; and

(B) Only to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories from three to five years after the release of a public notice announcing the completion of band reconfiguration in that region.

(ii) Five years after the release of a public notice announcing the completion of band reconfiguration in a given 800 MHz NPSPAC region, the channels listed in paragraph (c)(12) of this section will revert back to their original pool categories.

(d) *Use of 900 MHz Band in Canada Border Region.* All operations in the 896–901/935–940 MHz band within the Canada border region shall be in accordance with international agreements between the U.S. and Canada. The following criteria shall govern the assignment of frequency pairs (chan-

nels) in the 896–901/935–940 MHz band for stations located in the U.S./Canada border area. They are available for assignments for conventional or trunked systems in accordance with applicable sections of this subpart.

(1) Channels 1–399, as listed in § 90.613 table of 896–901/935–940 MHz Channel Designations, are available to eligible applicants for use in the U.S./Canada border area as shown in table 27. Additionally, Channels 71, 75, 79, 151, 155, and 159 are available in all regions only for implementation of an Advanced Train Control System as defined in 3 FCC Rcd 427 (1988) (Advanced Train Control Waiver).

TABLE 27—CHANNELS IN THE 896–901/935–940 MHz FREQUENCY BANDS AVAILABLE IN THE U.S./CANADA BORDER AREA

Region	Location (longitude)	Channels
1	66° W–71° W (0–100 km from border) ...	1–200, 398, 399
2	71° W–80°30' W (0–100 km from border)	1–120
3	80°30' W–85° W (0–100 km from border)	1–340
4	85° W–121°30' W (0–100 km from border).	1–200, 398, 399
5	121°30' W–127° W (0–140 km from border).	1–200, 398, 399
6	127° W–143° W (0–100 km from border)	1–200, 398, 399
7	66° W–121°30' W (100–140 km from border).	1–399
8	127° W–143° W (100–140 km from border).	1–399

Note: For assignments in the 896–901/935–940 MHz bands, the cities of Akron, Ohio (41°05'00" N, 81°30'40" W) and Youngstown, Ohio (41°05'57" N, 80°39'02" W) are considered outside of Region 3, and Syracuse, New York (43°03'04" N, 76°09'14" W) is considered outside of Region 2. These cities are defined as an area with the given center coordinates and encompassing a circle of 30 km radius.

(2) All frequency assignments made pursuant to paragraph (d)(1) of this section shall comply with the requirements of § 90.619(b).

(3) In Region 5, Channels 201–397 may be authorized in the United States under the following conditions:

(i) An assignment may be made if the predicted power flux density (PFD) of a proposed station's signal does not exceed –107 dBW/m² at the border. The prediction of the PFD is calculated based upon a modified Longley-Rice point-to-point propagation model with time and location variabilities of 10

percent³ and 3-second digitized terrain data⁴.

(ii) Authorizations for Channels 201–397 in Region 5 are secondary to Canadian operations and conditioned to require that licensees take immediate action to eliminate any harmful interference resulting from the station's transmitted signal exceeding –107 dBW/m² at or beyond the U.S./Canada border.

(4) Channel assignments for stations to be located in the geographical area in Region 1 enclosed by the United States-Canada border, the meridian 71° W and the line beginning at the intersection of 44°25' N, 71° W, then running by great circle arc to the intersection of 45° N, 70° W, then North along meridian 70° W to the intersection of 45°45' N, then running West along 45°45' N to the intersection of the United States-Canada border, will be only for channels 121 through 160, inclusive, and will be limited to assignments with 11 kHz or less necessary bandwidth. Coordination with Canada will be required for these channels.

(5) Channel assignments for stations to be located in the geographical area in Region 3 enclosed by the meridian of 81° W longitude, the arc of a circle of 100 km radius centered at 42°39'30" N latitude and 81° W longitude at the northern shore of Lake Erie and drawn clockwise from the southerly intersection with 80°30' W longitude to intersect the United States-Canada border West of 81° W, and the United States-Canada border, will be only for channels 121 through 230, inclusive, and will be limited to assignments with 11 kHz or less necessary bandwidth. Coordination with Canada will be required for these channels. U.S. stations must protect Canadian stations operating on channels 121 through 230 within an area of 30 km radius from the center city coordinates (referenced to North American Datum 1983 (NAD83)) of London, Ontario (42°59'00.1" N, 81°13'59.5" W).

(6) *Additional channels available*—The channels listed in table 28 are available for assignment in Regions 1–6 if the maximum power flux density (PFD) of the station's transmitted signal does

not exceed the limits specified in tables 29 and 30. The spreading loss shall be calculated using the free space formula taking into account any antenna discrimination in the direction of the border.

TABLE 28—ADDITIONAL CHANNELS AVAILABLE
[Regions 1–6]

Region	Channel No.'s	Effective radiated power
1	201–397	See Table 29
2	121–399	See Table 29
3	341–399	See Table 29
4	201–397	See Table 29
5	201–397	See Table 30
6	201–397	See Table 29

Authorizations for stations using these channels will be secondary to Canadian operations and conditioned to require that licensees take immediate action to eliminate any harmful interference resulting from the station's transmitted signal exceeding the values specified in tables 29 or 30 at or beyond the U.S./Canada border.

TABLE 29—MAXIMUM POWER FLUX DENSITY (PFD) AT THE U.S./CANADA BORDER CORRESPONDING TO EFFECTIVE ANTENNA HEIGHT
[Regions 1, 2, 3, 4, and 6]

Effective antenna height (EAH)		PFD (dBW/m ²)
Feet	Meters	
0–500	0–152	–84
501–1000	153–305	–90
1001–1500	306–457	–95
1501–2000	458–609	–98
2001–2500	610–762	–101
2501–3000	763–914	–101
3001–3500	915–1066	–103
3501–4000	1067–1219	–104
Above 4000	Above 1219	–104

TABLE 30—MAXIMUM POWER FLUX DENSITY (PFD) AT THE U.S./CANADA BORDER CORRESPONDING TO ANTENNA HEIGHT ABOVE MEAN SEA LEVEL

[Region 5]

Antenna height above mean sea level		PFD (dBW/m ²)
Feet	Meters	
0–1650	0–503	–87.0
1651–2000	504–609	–88.5
2001–2500	610–762	–91.0
2501–3000	763–914	–92.5
3001–3500	915–1066	–94.0
3501–4000	1067–1219	–95.0
4001–4500	1220–1371	–95.5
4501–5000	1372–1523	–96.0
Above 5000	Above 1523	–107.0

³See note 1, paragraph (c) of this section.

⁴See note 2, paragraph (c) of this section.

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(Secs. 4(i) and 303, Communications Act, as amended, and 5 U.S.C. 553 (b)(3)(B) and (d)(1))
[47 FR 41032, Sept. 16, 1982; 47 FR 41045, Sept. 16, 1982]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 90.619, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 90.621 Selection and assignment of frequencies.

(a) Applicants for frequencies in the Public Safety and Business/Industrial/Land Transportation Categories must specify on the application the frequencies on which the proposed system will operate pursuant to a recommendation by the applicable frequency coordinator. Applicants for frequencies in the SMR Category must request specific frequencies by including in their applications the frequencies requested.

(1) For trunked systems, the assignment of frequencies will be made in accordance with applicable loading criteria and in accordance with the following:

(i) Channels will be chosen and assigned in accordance with §§ 90.615, 90.617, or 90.619.

(ii) A mobile station is authorized to transmit on any frequency assigned to its associated base station.

(iii) There are no limitations on the number of frequencies that may be trunked. Authorizations for non-SMR stations may be granted for up to 20 trunked frequency pairs at a time in accordance with the frequencies listed in §§ 90.615, 90.617, and 90.619.

(2) For conventional systems the assignment of frequencies will be made in accordance with applicable loading criteria. Accordingly, depending upon the number of mobile units to be served, an applicant may either be required to share a channel, or, if an applicant shows a sufficient number of mobile units to warrant the assignment of one or more channels for its exclusive use, it may be licensed to use such channel or channels on an unshared basis in the area of operation specified in its application.

(i) Channels will be chosen and assigned in accordance with §§ 90.615, 90.617, or 90.619.

(ii) A mobile station is authorized to transmit on any frequency assigned to its associated base station.

(b) Stations authorized on frequencies listed in this subpart, except for those stations authorized pursuant to paragraph (g) of this section and EA-based and MTA-based SMR systems, will be assigned frequencies solely on the basis of fixed distance separation criteria. The separation between co-channel systems will be a minimum of 113 km (70 mi) with one exception. For incumbent licensees in Channel Blocks F1 through V, that have received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBμV/m signal strength interference contour (*see* § 90.693), the separation between co-channel systems will be a minimum of 173 km (107 mi). The following exceptions to these separations shall apply:

(1) Except as indicated in paragraph (b)(4) of this section, no station in Channel Blocks A through V shall be less than 169 km (105 mi) distant from a co-channel station that has been granted channel exclusivity and authorized 1 kW ERP on any of the following mountaintop sites: Santiago Peak, Sierra Peak, Mount Lukens, Mount Wilson (California). Except as indicated in paragraph (b)(4) of this section, no incumbent licensee in Channel Blocks F1 through V that has received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBμV/m signal strength interference contour shall be less than 229 km (142 mi) distant from a co-channel station that has been granted channel exclusivity and authorized 1 kW ERP on any of the following mountaintop sites: Santiago Peak, Sierra Peak, Mount Lukens, Mount Wilson (California).

(2) The separation between co-channel stations that have been granted exclusivity and that are located at high sites in California north of 35° N Latitude and west of 118° W Longitude shall be determined as follows:

(i) Required co-channel separations between common antenna sites are given by table 1. A channel group assigned to a station on a site listed in the vertical column may not be re-assigned to a station on a site listed in

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table 1 shall be determined by Commission staff on a case by case basis. The interference potential of proposed assignments will be evaluated considering parameters such as antenna height, effective radiated power, terrain irregularities, and market conditions.

tions.

[illegible]

(3) Except as indicated in paragraph (b)(4) of this section, stations in Channel Blocks A through V that have been granted channel exclusivity and are located in the State of Washington at the locations listed in the table below shall be separated from co-channel stations by a minimum of 169 km (105 mi). Except as indicated in paragraph (b)(4) of this section, incumbent licensees in Channel Blocks F1 through V that have received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBμV/m signal strength interference contour, have been granted channel exclusivity and are located in the State of Washington at the locations listed in the table below shall be separated from co-channel stations by a minimum of 229 km (142 mi). Locations within one mile of the geographical coordinates listed in the table below will be considered to be at that site.

Note: Coordinates are referenced to North American Datum 1983 (NAD83).

Site name	North latitude	West longitude
Mount Constitution	48° 40' 47.4"	122° 50' 28.7"
Lyman Mountain	48° 35' 41.4"	122° 09' 39.6"
Cultus Mountain	48° 25' 30.4"	122° 08' 58.5"
Gunsite Ridge	48° 03' 22.4"	121° 51' 41.5"
Gold Mountain	47° 32' 51.3"	122° 46' 56.5"
Buck Mountain	47° 47' 05.3"	122° 59' 34.6"
Cougar Mountain	47° 32' 39.4"	122° 06' 34.4"
Squak Mountain	47° 30' 14.4"	122° 03' 34.4"
Tiger Mountain	47° 30' 13.4"	121° 58' 32.4"
Devils Mountain	48° 21' 52.4"	122° 16' 06.6"
McDonald Mountain	47° 20' 11.3"	122° 51' 30.5"
Maynard Hill	48° 00' 58.3"	122° 55' 35.6"
North Mountain	47° 19' 07.3"	123° 20' 48.6"
Green Mountain	47° 33' 40.3"	122° 48' 31.5"
Capitol Peak	46° 58' 21.3"	123° 08' 21.5"
Rattlesnake Mountain	47° 28' 09.4"	121° 49' 17.4"
Three Sisters Mountain	47° 07' 19.4"	121° 53' 34.4"
Grass Mountain	47° 12' 14.1"	121° 47' 42.4"
Spar Pole Hill	47° 02' 51.4"	122° 08' 39.4"

(4) Upon an applicant's specific request to the Commission or a frequency coordinator, co-channel stations may be separated by less than 113 km (70 mi) by meeting certain transmitter ERP and antenna height criteria. The following table indicates separations assignable to such co-channel stations for various transmitter power and antenna height combinations. The minimum separation permitted is 88 km (55 mi). Applicants will provide the Commission with a statement that the application is submitted for consideration under the table, a list

of all co-channel stations within 113 km (70 mi), and the DHAATs and ERPs for these stations and the applicant's proposed station. Applicants seeking to be licensed for stations located at distances less than those prescribed in the table are required to secure a waiver and must submit with the application, in addition to the above, an interference analysis, based upon any of the generally-accepted terrain-based propagation models, that shows that co-channel stations would receive the same or greater interference protection than provided in the table. Requests for separations less than 88 km (55 mi) must also include an analysis of interference potential from mobile transmitters to existing co-channel base station receivers. Applicants seeking a waiver must submit with their application a certificate of service indicating that concurrent with the submission of the application to the Commission or a coordinator, all co-channel licensees within the applicable area were served with a copy of the application and all attachments thereto. Licensees thus served may file an opposition to the application within 30 days from the date the application is filed with the Commission.

(i) The directional height of the antenna above average terrain (DHAAT) is calculated from the average of the antenna heights above average terrain from 3 to 16 km (2 to 10 mi) from the proposed site along a radial extending in the direction of the existing station and the radials 15 degrees to either side of that radial.

(ii) Except for the sites listed in paragraphs (b)(1), (b)(2), and (b)(3) of this section, additional co-channel distance separation must be afforded to an existing station from an applicant wishing to locate a station less than 113 km (70 mi) from a co-channel station, where either the applicant's or the existing station is located at sites with DHAATs of 458 m (1500 ft) and above. The separation between short-spaced co-channel stations shall be determined as follows:

(A) Calculate the DHAAT in each direction between every existing co-channel station with 113 km (70 mi) and the proposed station.

(B) In the table, locate the approximate ERP and DHAAT values for the proposed and existing stations.

(C) When DHAAT values are greater than 458 m (1500 ft), use the required separation for 305 m (1000 ft) and add 1.6 km (1 mi) for every 30.5 km (100 ft), or increment thereof, of DHAAT above 458 m (1500 ft) to the distance indicated in the table. If both the proposed existing stations have DHAATs of 458 m (1500 ft) or more, the additional distance is separately determined for each station and the combined distance is added to the distance obtained from the table. Protection to existing stations will be afforded only up to 113 km (70 mi).

SHORT-SPACING SEPARATION TABLE

Proposed station ERP (watts)/ DHAAT(m) ³	Distance between stations (km) ^{1,2}						
	Existing station DHAAT (meters) ³						
	305	215	150	108	75	54	37
1000/305	113	113	113	113	113	113	113
1000/215	113	113	113	113	113	113	110
1000/150	113	113	113	113	112	108	103
1000/108	113	113	113	110	107	103	98
1000/75	113	112	108	103	100	96	91
1000/54	113	109	105	100	97	93	88
1000/37	109	104	100	95	92	88	88
500/305	113	113	113	113	113	113	110
500/215	113	113	113	112	109	105	100
500/150	113	112	108	103	100	96	91
500/108	112	107	103	98	95	91	88
500/75	107	102	98	93	90	88	88
500/54	103	98	94	89	88	88	88
500/37	99	94	90	88	88	88	88
250/305	113	113	113	112	109	105	100
250/215	113	113	107	102	99	95	90
250/150	109	104	100	95	92	88	88
250/108	105	100	96	91	88	88	88
250/75	99	94	90	88	88	88	88
250/54	95	90	88	88	88	88	88
250/37	91	88	88	88	88	88	88
125/305	113	111	107	102	99	95	90
125/215	108	103	99	94	91	88	88
125/150	103	98	94	89	88	88	88
125/108	98	93	89	88	88	88	88
125/75	93	88	88	88	88	88	88
125/54	88	88	88	88	88	88	88
125/37	88	88	88	88	88	88	88
62/305	108	103	99	94	91	88	88
62/215	103	98	94	89	88	88	88
62/150	97	92	88	88	88	88	88
62/108	92	88	88	88	88	88	88
62/75	88	88	88	88	88	88	88
62/54	88	88	88	88	88	88	88
62/37	88	88	88	88	88	88	88

¹ Separations for stations on Santiago Peak, Sierra Peak, Mount Lukens, and Mount Wilson (CA) and the locations in the State of Washington listed in paragraph (b)(3) of this section are 56 km (35 mi) greater than those listed in the table above. In the event of conflict between this table and the table of additional California high elevation sites shown in paragraph (b)(2) of this section, the latter will apply.

² Distances shown are derived from the R-6602 curves and are based upon a non-overlap of the 22 dBu (F50,10) interference contour of the proposed station with the 40 dBu (F50,50) contour of the existing station(s). No consideration is given to the 40 dBu service contour of the proposed station and the 22 dBu contour of the existing station(s). The minimum separation of stations will be 88 km (55 mi).

³ All existing stations are assumed to operate with 1000 watts ERP. When the ERP and/or DHAAT of a proposed station or the DHAAT of an existing station is not indicated in the table, the next higher value(s) must be used.

(5) The separation between co-channel systems may be less than the separations defined above if an applicant submits with its application letters of concurrence indicating that the applicant and each co-channel licensee within the specified separation agree to accept any interference resulting from the reduced separation between their systems. Each letter from a co-channel licensee must certify that the system of the concurring licensee is constructed and fully operational. The applicant must also submit with its application a certificate of service indicating that all concurring co-channel licensees have been served with an actual copy of the application.

(6) A station located closer than the distances provided in this section to a co-channel station that was authorized as short-spaced under paragraph (b)(4) of this section shall be permitted to modify its facilities as long as the station does not extend its 22 dBu contour beyond its maximum 22 dBu contour (i.e., the 22 dBu contour calculated using the station's maximum power and antenna height at its original location) in the direction of the short-spaced station.

(7) Offset frequencies in the 811–821/856–866 MHz band for use only within U.S./Mexico border area, as designated in §90.619(a), shall be considered co-channel with non-offset frequencies in this band as designated in §90.613. New applications for frequencies in this band for stations adjacent to the U.S./Mexico border area must comply with the co-channel separation provisions of this section.

(c) Conventional systems authorized on frequencies in the Public Safety (except for those systems that have participated in a formal regional planning process as described in §90.16) and Business/Industrial/Land Transportation categories which have not met the

loading levels necessary for channel exclusivity will not be afforded co-channel protection.

(d) UHF television translator stations using UHF output channels from Channels 70 through 83 operate on a secondary basis to land mobile stations using the UHF bands allocated under this subpart for land mobile use. Accordingly, such television translator stations will not be protected from interference from such authorized land mobile stations.

(e) Frequencies in the 809–817/854–862 MHz bands listed as available for eligibles in the Public Safety and Business/Industrial/Land Transportation Categories are available for inter-category sharing under the following conditions:

(1) Channels in the Public Safety and Business/Industrial/Land Transportation categories will be available to eligible applicants in those categories only if there are no frequencies in their own category and no public safety systems are authorized on those channels under consideration to be shared.

(2) Notwithstanding paragraph (e)(5) of this section, licensees of channels in the Business/Industrial/Land Transportation category may request a modification of the license, see § 1.947 of this chapter, to authorize use of the channels for commercial operation. The licensee may also, at the same time or thereafter, seek authorization to transfer or assign the license, see § 1.948 of this chapter, to any person eligible for licensing in the General or SMR categories. Applications submitted pursuant to this paragraph must be filed in accordance with the rules governing other applications for commercial channels, and will be processed in accordance with those rules. Grant of requests submitted pursuant to this paragraph is subject to the following conditions:

(i) A licensee that modifies its license to authorize commercial operations will not be authorized to obtain additional 800 MHz Business/Industrial/Land Transportation category channels for sites located within 113 km (70 mi.) of the station for which the license was modified, for a period of one year from the date the license is modified. This provision applies to the licensee, its controlling interests and their af-

filiates, as defined in § 1.2110 of this chapter.

(ii) With respect to licenses the initial application for which was filed on or after November 9, 2000, requests submitted pursuant to paragraph (e)(2) of this section may not be filed until five years after the date of the initial license grant. In the case of a license that is modified on or after November 9, 2000 to add 800 MHz Business/Industrial/Land Transportation frequencies or to add or relocate base stations that expand the licensee's interference contour, requests submitted pursuant to paragraph (e)(2) of this section for these frequencies or base stations may not be filed until five years after such modification.

(iii) Requests submitted pursuant to paragraph (e)(2) of this section must include a certification that written notice of the modification application has been provided to all Public Safety licensees, see § 90.20(a), with base stations within 113 km (70 mi.) of the site of the channel(s) for which authorization for commercial use is sought that operate within 25 kHz of the center of those channel(s). If, pursuant to paragraph (e)(2) of this section, modification and assignment or transfer applications are filed at different times, the written notice required by this paragraph must be provided each time.

(iv) The applicant must certify that it will take reasonable precautions to avoid causing harmful interference to Public Safety licensees, see § 90.20(a), and to take such action as may be necessary to eliminate interference to such licensees caused by its operations. (When an assignment or transfer application is filed pursuant to paragraph (e)(2) of this section, this representation is required only of the assignee or transferee.) Licensees of stations suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If the licensees are unable to do so, the Commission may impose restrictions including specifying the transmitter power, antenna height, or area or hours of operation.

(3) Licensees granted authorizations pursuant to paragraph (e)(2) of this section may at any time request modification of the license to authorize use of

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the channels consistent with the rules governing the category to which they are allocated, provided that the licensee meets the applicable eligibility requirements.

(4) [Reserved]

(5) The frequency coordinator must certify that frequencies are not available in the applicant's own category, and coordination is required from the applicable out-of-category coordinator.

(6) The out-of-category licensee must operate by the rules applicable to the category to which the frequency is allocated.

(f) Licensees of channels in the Business/Industrial/Land Transportation Categories in the 896–901/935–940 MHz bands may request a modification of the license, *see* § 1.947 of this chapter, to authorize use of the channels for commercial operation. The licensee may also, at the same time, or thereafter, seek authorization to transfer or assign the license, *see* § 1.948 of this chapter, to any person eligible for licensing in the General or SMR categories. Applications submitted pursuant to this paragraph must be filed in accordance with the rules governing other applications for commercial channels, and will be processed in accordance with those rules.

(g) Applications for Public Safety systems (both trunked and conventional) in the 806–809/851–854 MHz bands will be assigned and protected based on the criteria established in the appropriate regional plan. *See* § 90.16 and the Report and Order in General Docket 87–112.

(h) Channel numbers 511–520, 551–560, 591–600, 631–640, and 671–680 are allocated for Basic Exchange Telecommunications Radio Service as described in § 22.757 of this chapter. The FCC has proposed to remove these channels from the rural radiotelephone service in WT Docket No. 03–103 (FCC 03–95) released April 28, 2003 (68 FR 4403 July 25, 2003) which is pending.

[47 FR 41032, Sept. 16, 1982]

EDITORIAL NOTES 1. For FEDERAL REGISTER citations affecting § 90.621, *see* the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

2. At 63 FR 68968, Dec. 14, 1998, § 90.621 was amended by adding a note before Table 1 and

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revising the first two columns of Table 1. However, Table 1 of § 90.621 as it appears in the October 1, 1998 revision of title 47 parts 80–end is an illustration and cannot be amended. For the convenience of the user, the revised text is set forth as follows:

§ 90.621 Selection and assignment of frequencies.

* * * *

(b) * * *

TABLE 1—CO-CHANNEL SEPARATIONS BETWEEN COMMON ANTENNA SITES IN THE STATE OF CALIFORNIA NORTH OF 35° NORTH LATITUDE AND WEST OF 118° WEST LONGITUDE

[NOTE: Coordinates are referenced to North American Datum 1983 (NAD83)]

North latitude	West longitude	* * *
38°03'39.7"	122°36'20.9"	* * *
37°55'43.7"	122°35'14.9"	* * *
37°50'56.7"	122°29'59.9"	* * *
37°52'53.7"	121°55'08.9"	* * *
37°51'11.7"	122°12'33.9"	* * *
37°52'57.7"	122°13'14.9"	* * *
37°50'59.7"	122°11'33.9"	* * *
37°43'32.8"	122°24'55.9"	* * *
37°41'20.8"	122°26'11.9"	* * *
37°24'38.8"	122°18'23.9"	* * *
37°19'12.8"	122°08'36.9"	* * *
37°10'36.8"	121°54'27.8"	* * *
37°07'08.8"	121°50'01.8"	* * *
37°06'39.8"	121°50'32.8"	* * *
36°31'44.9"	121°36'27.8"	* * *
37°29'14.8"	121°52'06.8"	* * *
40°15'45.6"	122°05'41.0"	* * *
39°51'49.6"	121°41'23.9"	* * *
39°12'16.6"	121°49'05.9"	* * *
39°08'00.6"	121°06'01.8"	* * *
38°52'14.6"	121°07'42.8"	* * *
38°24'19.7"	122°06'33.9"	* * *
38°01'14.7"	120°35'09.7"	* * *
37°30'30.8"	121°22'29.8"	* * *
37°32'31.8"	120°03'48.6"	* * *
37°04'09.8"	119°25'42.5"	* * *
36°44'37.8"	119°17'02.4"	* * *
36°18'09.8"	120°24'06.6"	* * *
36°17'06.8"	118°50'22.3"	* * *
35°38'28.8"	118°47'11.3"	* * *
35°33'08.8"	118°49'23.3"	* * *
35°17'16.9"	119°30'58.4"	* * *
35°17'26.9"	119°45'51.5"	* * *
35°16'50.9"	119°44'55.5"	* * *

* * * *

§ 90.623 Limitations on the number of frequencies assignable for conventional systems.

(a) The maximum number of frequency pairs that may be assigned to a licensee for operation in the conventional mode in a given area is five (5).

(b) Where an applicant proposes to operate a conventional radio system to

provide facilities for the use of a single person or entity eligible under subparts B or C of this part, the applicant may be assigned only the number of frequency pairs justified on the basis of the requirement of the proposed single user of the system.

(c) No non-SMR licensee will be authorized an additional frequency pair for a conventional system within 64 kilometers (40 miles) of an existing conventional system, except where:

(1) The additional frequency pair will be used to provide radio facilities to a single entity and the additional frequency pair is justified on the basis of the requirements of the proposed single user; or,

(2) The licensee's existing frequency pair(s) is loaded to prescribed levels.

(d) No licensee will be authorized frequencies for a conventional system if that licensee is operating an unloaded trunked system or has an application pending for a trunked system to serve multiple subscribers within 64 km (40 miles) of the requested conventional system.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 44559, Sept. 29, 1983; 48 FR 51929, Nov. 15, 1983; 58 FR 44963, Aug. 25, 1993; 59 FR 59966, Nov. 21, 1994; 62 FR 18935, Apr. 17, 1997]

§ 90.625 Other criteria to be applied in assigning channels for use in conventional systems of communication.

(a) Where an applicant certifies on its application that a channel will be loaded to 70 mobile stations, that channel will be made available to that applicant for its exclusive use in the area in which it proposes to operate. If the showing made justifies the assignment of more than one channel to the applicant, additional frequencies will be authorized.

(b) Where an applicant proposes to furnish service to eligibles under subparts B or C of this part on a commercial basis using a conventional system of communication, the applicant will be considered on the same basis as that of an applicant for private or shared communication facilities.

(c) No person authorized to operate any radio facility under the provisions of this subpart shall have a right to protest proposals on grounds other

than violation of or inconsistency with the provisions of this subpart. All grants are made subject to this condition and to the other conditions and standards set out in this subpart.

[47 FR 41032, Sept. 16, 1982, as amended at 62 FR 18935, Apr. 17, 1997; 63 FR 68969, Dec. 14, 1998]

§ 90.627 Limitation on the number of frequency pairs that may be assignable for trunked systems and on the number of trunked systems.

(a) The maximum number of frequency pairs that may be assigned at any one time for the operation of a trunked radio system is twenty, except as specified in § 90.621(a)(1)(iv).

(b) No non-SMR licensee will be authorized an additional trunked system within 64 kilometers (40 miles) of an existing trunked system, except where:

(1) The additional trunked system will be used to provide radio facilities for a single entity, where the additional system is justified on the basis of the requirements of the proposed single user; or,

(2) The licensee's existing trunked system is loaded to at least 70 mobile and control stations per channel.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 44559, Sept. 29, 1983; 48 FR 51929, Nov. 15, 1983; 49 FR 36377, Sept. 17, 1984; 51 FR 37404, Oct. 22, 1986; 53 FR 12157, Apr. 13, 1988; 58 FR 44963, Aug. 25, 1993; 59 FR 59966, Nov. 21, 1994]

§ 90.629 Extended implementation period.

Applicants requesting frequencies for either trunked or conventional operations may be authorized a period of up to five (5) years for constructing and placing a system in operation in accordance with the following:

(a) The applicant must justify an extended implementation period. The justification must describe the proposed system, state the amount of time necessary to construct and place the system in operation, identify the number of base stations to be constructed and placed in operation during each year of the extended construction period, and show that:

(1) The proposed system will require longer than twelve (12) months to construct and place in operation because of its purpose, size, or complexity; or

(2) The proposed system is to be part of a coordinated or integrated wide-area system which will require more than twelve (12) months to plan, approve, fund, purchase, construct, and place in operation; or

(3) The applicant is required by law to follow a multi-year cycle for planning, approval, funding, and purchasing the proposed system.

(b) Where an applicant is required by law to follow a multi-year cycle for planning, approval, funding and purchasing a proposed system, the applicant must indicate whether funding approval has been obtained and if not, when such funding approval is expected.

(c) Authorizations under this section are conditioned upon the licensee constructing and placing its system in operation within the authorized implementation period and in accordance with an approved implementation plan of up to five years. Licensees must notify the Commission annually, using FCC Form 601, that they are in compliance with their yearly station construction commitments, but may request amendment to these commitments at the time they file their annual certification. If the Commission approves the requested amendments to a licensee's implementation commitments, the licensee's extended implementation authority will remain in effect. If, however, the Commission concludes, at this or any other time, that a licensee has failed to meet its commitments, the Commission will terminate authority for the extended implementation period. When the Commission terminates an extended implementation authority, the affected licensee will be given six months from the date of termination to complete system construction. At the end of any licensee's extended implementation period, authorizations for all stations not constructed and placed in operation will be cancelled. Trunked systems granted an extended implementation period must comply with the channel loading requirements of section 90.631(b). Conventional channels not loaded to 70 mobile units may be subject to shared use by the addition of other licensees.

(d) [Reserved]

(e) As of March 18, 1996, Specialized Mobile Radio systems are not eligible for extended implementation periods under this section. Additionally, all 800 MHz SMR licensees that are operating under extended implementation authority as of March 18, 1996 must, by May 16, 1996, demonstrate that continuing to allow them to have an extended period of time to construct their facilities is warranted and furthers the public interest. If a licensee's extended implementation authority showing is approved by the Bureau, such licensee will be afforded an extended implementation of two years or the remainder of its current extended implementation period, whichever is shorter. Upon the termination of this period, the authorizations for those facilities that remain unconstructed will terminate automatically. If a licensee with a current extended implementation period fails to submit the showing mentioned above within the designated timeframe or submits an insufficient or incomplete showing, such licensee will have six months from the last day on which it could timely file such a showing or from the disapproval of its request to construct the remaining facilities covered under its implementation plan to construct any unconstructed facilities for which it is authorized. The authorizations for those facilities remaining unconstructed after this six-month period will terminate automatically.

(f) Pursuant to §90.155(b), the provisions of this section shall apply to local government entities applying for any frequency in the Public Safety Pool.

[58 FR 34379, June 25, 1993, as amended at 61 FR 6157, Feb. 16, 1996; 63 FR 68969, Dec. 14, 1998; 65 FR 60877, Oct. 13, 2000; 69 FR 67489, Nov. 22, 2004]

§90.631 Trunked systems loading, construction and authorization requirements.

(a) Non-SMR trunked systems will be authorized on the basis of a loading criteria of one hundred (100) mobile stations per channel. For purposes of determining compliance with trunked system loading requirements under

this subpart, the term “mobile station” includes vehicular and portable mobile units and control stations.

(b) Each applicant for a non-SMR trunked system must certify that a minimum of seventy (70) mobiles for each channel authorized will be placed into operation within five (5) years of the initial license grant.

(c) Except for SMR applicants and as provided in paragraph (d) of this section, an applicant seeking to expand a trunked system by requesting additional channels from the Commission, or through intercategory sharing, or through an assignment, must have a loading level of seventy (70) mobiles per channel on the existing system that is the subject of the expansion request.

(d) In rural areas, a licensee of a trunked system may request to increase its system capacity by five more channels than it has constructed without meeting the loading requirements specified in paragraphs (b) and (c) of this section. A rural area is defined for purposes of this section as being beyond a 100-mile radius of the designated centers of the following urbanized areas: New York, NY; Los Angeles, CA; Chicago, IL; Philadelphia, PA; San Francisco, CA; Detroit, MI; Boston, MA; Houston, TX; Washington, DC; Dallas-Fort Worth, TX; Miami, FL; Cleveland, OH; St. Louis, MO; Atlanta, GA; Pittsburgh, PA; Baltimore, MD; Minneapolis-St. Paul, MN; Seattle, WA; San Diego, CA; and Tampa-St. Petersburg, FL. The coordinates for the centers of these areas are those referenced in § 90.635, except that the coordinates (referenced to North American Datum 1983 (NAD83)) for Tampa-St. Petersburg are latitude 28°00'1.1" N, longitude 82°26'59.3" W.

(e) Except as provided in § 90.629, licensees of trunked facilities must complete construction within one year.

(f) If a station is not placed in permanent operation, in accordance with the technical parameters of the station authorization, within one year, except as provided in § 90.629, its license cancels automatically. For purposes of this section, a base station is not considered to be placed in operation unless at least two associated mobile stations, or one control station and one mobile sta-

tion, are also placed in operation. An SMR licensee with facilities that have discontinued operations for 90 continuous days is presumed to have permanently discontinued operations, unless the licensee notifies the Commission otherwise, using FCC Form 601, prior to the end of the 90 day period and provides a date on which operation will resume, which date must not be in excess of 30 additional days.

(g) Wide area systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. Remote or satellite stations of wide area systems in the Public Safety, Special Emergency, Telephone Maintenance, and Power Radio Services may be authorized on a primary basis if such stations are the first to be authorized in their area of operation on the frequency or group of frequencies. Remote or satellite stations of wide area systems in all other services will be authorized only on a secondary, non-interference basis to cochannel licensees. To determine system loading, the total number of mobile units and control stations operating in the wide-area system shall be counted with respect to the total number of base station frequencies assigned to the system.

(h) Regional, statewide, or ribbon configuration systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. In a ribbon, regional or statewide system, a mobile station will be counted for channel loading purposes only for the base station facility in the geographic area in which it primarily operates. If this cannot be determined, it will be counted fractionally over the number of base station facilities with which it communicates regularly.

[47 FR 41032, Sept. 16, 1982]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 90.631, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 90.633 Conventional systems loading requirements.

(a) Non-SMR conventional systems of communication will be authorized on

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the basis of a minimum loading criteria of seventy (70) mobile stations for each channel authorized.

(b) A channel will not be assigned to additional licensees when it is loaded to 70 mobile stations. Where a licensee does not load a channel to 70 mobiles the channel will be available for assignment to other licensees. All authorizations for conventional systems are issued subject to this potential channel sharing condition.

(c) Except as provided in § 90.629 of this part, licensees of conventional systems must place their authorized stations in operation not later than one year after the date of grant of the system license.

(d) If a station is not placed in operation within one year, except as provided in Section 90.629 of this part, the license cancels automatically. For purposes of this section, a base station is not considered to be in operation unless at least one associated mobile station is also in operation.

(e) A non-SMR licensee may apply for additional frequency pairs if its authorized conventional channel(s) is loaded to seventy (70) mobiles. Applications may be considered for additional channels in areas where spectrum is still available and not applied for, even if the already authorized channel(s) is not loaded to 70 mobile units, upon an appropriate demonstration of need.

(f) Wide area systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. For loading purposes, if the total number of mobile stations justifies the total number of authorized based frequencies in a given area, the system will be construed to be loaded.

(g) Regional, statewide, or ribbon configuration systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. In a ribbon, regional or statewide system, a mobile station will be counted for channel loading purposes only for the base station facility in the geographic area in which it primarily operates. If this cannot be determined, it will be counted fractionally over the number

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of base station facilities with which it communicates regularly.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 56 FR 65860, Dec. 19, 1991; 59 FR 59966, Nov. 21, 1994; 62 FR 18935, Apr. 17, 1997; 64 FR 10397, Mar. 4, 1999]

TECHNICAL REGULATIONS REGARDING THE USE OF FREQUENCIES IN THE 806–824 MHz, 851–869 MHz, 896–901 MHz, AND 935–940 MHz BANDS

§ 90.635 Limitations on power and antenna height.

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

TABLE—EQUIVALENT POWER AND ANTENNA HEIGHTS FOR BASE STATIONS IN THE 851–869 MHz AND 935–940 MHz BANDS WHICH HAVE A REQUIREMENT FOR A 32 KM (20 MI) SERVICE AREA RADIUS

Antenna height (ATT) meters (feet)	Effective radiated power (watts) ^{1,2,4}
Above 1,372 (4,500)	65
Above 1,220 (4,000) to 1,372 (4,500)	70
Above 1,067 (3,500) to 1,220 (4,000)	75
Above 915 (3,000) to 1,067 (3,500)	100
Above 763 (2,500) to 915 (3,000)	140
Above 610 (2,000) to 763 (2,500)	200
Above 458 (1,500) to 610 (2,000)	350
Above 305 (1,000) to 458 (1,500)	600
Up to 305 (1,000)	³ 1,000

¹ Power is given in terms of effective radiated power (ERP).

² Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.

³ Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw (ERP).

⁴ Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

[70 FR 61062, Oct. 20, 2005]

§ 90.637 Restrictions on operational fixed stations.

(a) Except for control stations, operational fixed operations will not be authorized in the 806–824 MHz, 851–869 MHz, 896–901 MHz, or 935–940 MHz

bands. This does not preclude secondary fixed tone signaling and alarm operations authorized in §90.235 or in paragraph (c) of this section.

(b) Control stations associated with one or more mobile relay stations will be authorized only on the assigned frequency of the associated mobile station. Use of a mobile service frequency by a control station of a mobile relay system is subject to the condition that harmful interference shall not be caused to stations of licensees authorized to use the frequency for mobile service communications.

(c) Trunked and conventional systems that have exclusive-use status in their respective geographic areas may conduct fixed ancillary signaling and data transmissions subject to the following requirements:

(1) All operations must be on a secondary, non-interference basis to the primary mobile operation of any other licensee.

(2) The output power at the remote site must not exceed 30 watts.

(3) Any fixed transmitters will not count toward meeting the mobile loading requirements nor be considered in whole or in part as a justification for authorizing additional frequencies in the licensee's mobile system.

(4) Automatic means must be provided to deactivate the remote transmitter in the event the carrier remains on for a period in excess of three minutes.

(5) Operational fixed stations authorized pursuant to the provisions of paragraphs (c) and (d) of this section are exempt from the requirements of §§90.425 and 90.429.

(d) Conventional systems that do not have exclusive-use status in their respective geographic areas may conduct fixed ancillary signaling and data transmissions only in accordance with all the provisions of §90.235.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 49 FR 36377, Sept. 17, 1984; 51 FR 37405, Oct. 22, 1986; 52 FR 1332, Jan. 13, 1987; 53 FR 12157, Apr. 13, 1988; 57 FR 34693, Aug. 6, 1992]

§90.645 Permissible operations.

Conventional and trunked radio systems may be used:

(a) Only for purposes expressly allowed under this part.

(b) Only persons who are eligible for facilities, either under this subpart or in the radio service included under subparts B or C of this part.

(c) Except for licensees classified as CMRS providers under part 20 of this chapter, only for the transmission of messages or signals permitted in the services in which the participants are eligible.

(d) For digital or analog transmissions.

(e) An SMRS licensee or a licensee who has been authorized a channel(s) on an exclusive basis, may use the system for the transmission of any base/mobile message, page or signal permitted in the service in which the participants are eligible.

(f) Where the channel(s) is assigned to an SMRS licensee or exclusively to a single licensee, or where all users of a system agree, more than a single emission may be utilized within the authorized bandwidth. In such cases, the frequency stability requirements of §90.213 shall not apply, but out-of-band emission limits of §90.209 shall be met.

(g) Up to five (5) contiguous 809-816/854-861 band channels as listed in §§90.615, 90.617, and 90.619 may be authorized after justification for systems requiring more than the normal single channel bandwidth. If necessary, licensees may trade channels amongst themselves in order to obtain contiguous frequencies. Notification of such proposed exchanges shall be made to the appropriate frequency coordinator(s) and to the Commission by filing an application for license modification.

(h) Up to 10 contiguous 896-901/935-940 MHz band channels as listed in §90.617 may be combined for systems requiring more than the normal single channel bandwidth. If necessary, licensees may trade channels amongst themselves in order to obtain contiguous frequencies. Notification of such proposed exchanges shall be made to the appropriate frequency coordinator(s) and to the Commission by filing an application for license modification.

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(i) Paging operations may be utilized on multiple licensed facilities (community repeaters) only when all licensees of the facility agree to such use.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 51 FR 37405, Oct. 22, 1986; 59 FR 59966, Nov. 21, 1994; 62 FR 18935, Apr. 17, 1997; 63 FR 68970, Dec. 14, 1998; 69 FR 67849, Nov. 22, 2004]

§ 90.647 Station identification.

(a) Conventional systems of communication shall be identified in accordance with existing regulations governing such matters.

(b) Trunked systems of communication, except as noted in paragraph (c) of this section, shall be identified through the use of an automatic device which transmits the call sign of the base station facility at 30 minute intervals. Such station identification shall be made on the lowest frequency in the base station trunk group assigned the licensee. Should this frequency be in use at the time station identification is required, such identification may be made at the termination of the communication in progress on this frequency. Identification may be made by voice or International Morse Code. When the call sign is transmitted in International Morse Code, it must be at a rate of between 15 to 20 words per minute and by means of tone modulation of the transmitter, the tone frequency being between 800 and 1000 hertz.

(c) Stations operating in either the 806-824/851-869 MHz or 896-901/935-940 MHz bands that are licensed on an exclusive basis, and normally employ digital signals for the transmission of data, text, control codes, or digitized voice may also be identified by digital transmission of the call sign. A licensee that identifies its station in this manner must provide the Commission, upon its request, information sufficient to decode the digital transmission and ascertain the call sign transmitted.

(d) Notwithstanding the requirements set forth in this paragraph, systems operated by geographic area CMRS licensees are subject only to the

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station identification requirements of § 90.425(e).

[47 FR 41032, Sept. 16, 1982, as amended at 58 FR 12177, Mar. 3, 1993; 65 FR 24420, Apr. 26, 2000]

§ 90.651 Supplemental reports required of licensees authorized under this subpart.

Licensees of conventional systems must notify the Commission in accordance with § 1.946 of this chapter of the number of mobile units placed in operation within their construction period.

[63 FR 68970, Dec. 14, 1998]

EDITORIAL NOTE: At 63 FR 10397, Mar. 4, 1999, § 90.651 was amended by revising paragraph (c), effective Apr. 5, 1999. However, § 90.651, as revised at 63 FR 68970, Dec. 14, 1998, effective Feb. 12, 1999, does not contain paragraph (c), and the revision could not be made. For the convenience of the user, the revised text is set forth as follows:

§ 90.651 Supplemental reports required of licensees authorized under this subpart.

* * * * *

(c) Licensees of conventional systems must report the number of mobile units placed in operation within twelve months of the date of the grant of their license. Such reports shall be filed within 30 days from that date.

* * * * *

§ 90.655 Special licensing requirements for Specialized Mobile Radio systems.

End users of conventional or trunked Specialized Mobile Radio systems that have control stations that require FAA clearance, as specified in §§ 17.7 through 17.17 of this chapter, or that may have a significant environmental effect, as defined by § 1.1307, or that are located in a “quiet zone”, as defined by § 1.924 of this chapter must be individually licensed for such control stations prior to construction or operation. All other end users’ operations will be within the scope of the base station licensee. All end users, however, continue to be responsible to comply with 47 CFR part 90 and other federal laws.

[57 FR 40850, Sept. 8, 1992, as amended at 63 FR 68970, Dec. 14, 1998]

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§ 90.656 Responsibilities of base station licensees of Specialized Mobile Radio systems.

(a) The licensees of base stations that provide Specialized Mobile Radio service on a commercial basis of the use of individuals, Federal government agencies, or persons eligible for licensing under either subparts B or C of this part will be responsible for exercising effective operational control over all mobile and control stations that communicate with the base station. The base station licensee will be responsible for assuring that its system is operated in compliance with all applicable rules and regulations.

(b) Customers that operate mobile units on a particular Specialized Mobile Radio system will be licensed to that system. A customer that operates temporarily on more than one system will be deemed, when communicating with the other system, to be temporarily licensed to the other system and for that temporary period, the licensee of the other system will assume the same licensee responsibility for the customer's mobile station(s) as if the customer's stations were licensed to that other system.

[57 FR 40851, Sept. 8, 1992, as amended at 62 FR 18935, Apr. 17, 1997]

POLICIES GOVERNING THE LICENSING AND USE OF MTA-BASED SMR SYSTEMS IN THE 896-901/935-940 MHz BAND

§ 90.661 MTA-based SMR service areas.

MTA licenses for SMR spectrum blocks in the 896-901/935-940 MHz band listed in table 4B of § 90.617(d) are available in 51 Major Trading Areas (MTAs) as defined in § 90.7. Within these MTAs, licenses will be authorized in ten channel blocks as specified in table 4B of § 90.617(d) through the competitive bidding procedures described in subpart U of this part.

[60 FR 21991, May 4, 1995]

§ 90.663 MTA-based SMR system operations.

(a) MTA-based licensees authorized in the 896-901/935-940 MHz band pursuant to § 90.661 may construct and operate base stations using any frequency identified in their spectrum block any-

where within their authorized MTA, provided that:

(1) The MTA licensee affords protection, in accordance with § 90.621(b), to all sites for which applications were filed on or prior to August 9, 1994.

(2) The MTA licensee complies with any rules and international agreements that restrict use of frequencies identified in their spectrum block, including the provisions of § 90.619 relating to U.S./Canadian and U.S./Mexican border areas.

(3) The MTA licensee limits its field strength at any location on the border of the MTA service area in accordance with § 90.671 and masks its emissions in accordance with § 90.669.

(b) In the event that the authorization for a previously authorized co-channel station within the MTA licensee's authorized spectrum block is terminated or revoked, the MTA licensee's co-channel obligations to such station will cease upon deletion of the facility from the Commission's licensing record. The MTA licensee then will be able to construct and operate base stations using such frequency.

[60 FR 21991, May 4, 1995]

§ 90.665 Authorization, construction and implementation of MTA licenses.

(a) MTA licenses in the 896-901/935-940 MHz band will be issued for a term not to exceed ten years.

(b) MTA licensees in the 896-901/935-940 MHz band will be permitted five years to construct their stations. This five-year period will commence with the issuance of the MTA-wide authorization and will apply to all of the licensee's stations within the MTA spectrum block, including any stations that may have been subject to an earlier construction deadline arising from a pre-existing authorization.

(c) Each MTA licensee in the 896-901/935-940 MHz band must, three years from the date of license grant, construct and place into operation a sufficient number of base stations to provide coverage to at least one-third of the population of the MTA; further, each MTA licensee must provide coverage to at least two-thirds of the population of the MTA five years from the date of license grant. Alternatively, an

MTA licensee must demonstrate, through a showing to the Commission five years from the date of license grant, that it is providing substantial service. An MTA licensee must, three years from license grant, either show that the $\frac{1}{3}$ population coverage standard has been satisfied, or provide written notification that it has elected to show substantial service to the MTA five years from license grant. In addition, as part of the election to provide a substantial service showing, each MTA licensee must, three years from license grant, indicate how it expects to demonstrate substantial service at five years. The MTA licensee must meet the population coverage benchmarks regardless of the extent to which incumbent licensees are present within the MTA block.

(d) MTA licensees who fail to meet the coverage requirements imposed at either the third or fifth years of their license term, or to make a convincing showing of substantial service, will forfeit the portion of the MTA license that exceeds licensed facilities constructed and operating on the date of the MTA license grant.

[60 FR 21991, May 4, 1995, as amended at 60 FR 48918, Sept. 21, 1995; 60 FR 61487, Nov. 30, 1995; 64 FR 39942, July 23, 1999]

§ 90.667 Grandfathering provisions for incumbent licensees.

(a) These provisions apply to all 900 MHz SMR licensees who obtained licenses or filed applications for secondary sites on or before August 9, 1994 (“incumbent licensees”), as well as to all 900 MHz SMR licensees who obtained authorizations pursuant to § 90.173(k). An incumbent licensee’s service area shall be defined by its originally-licensed 40 dBu field strength contour. Incumbent licensees are permitted to add new or modify transmit sites in this existing service area without prior notification to the Commission so long as their original 40 dBu field strength contour is not expanded.

(b) Incumbent licensees operating at multiple sites may, after grant of MTA licenses has been completed, exchange multiple site licenses for a single license, authorizing operations throughout the contiguous and overlapping 40

dBu field strength contours of the multiple sites. Incumbents exercising this license exchange option must submit specific information for each of their external base sites after the close of the 900 MHz SMR auction.

(c) Applications in the 900 MHz SMR service for secondary sites filed after August 9, 1994 shall be authorized on a secondary, non-interference basis to MTA licensee operations. No secondary sites shall be granted on this basis in an MTA once the MTA licensee has been selected.

[60 FR 48918, Sept. 21, 1995]

§ 90.669 Emission limits.

(a) On any frequency in an MTA licensee’s spectrum block that is adjacent to a non-MTA frequency, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 plus $10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation.

NOTE: The measurements of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

[60 FR 21992, May 4, 1995]

§ 90.671 Field strength limits.

The predicted or measured field strength at any location on the border of the MTA service area for MTA licensees shall not exceed 40 dBuV/m unless all bordering MTA licensees agree to a higher field strength. MTA licensees are also required to coordinate their frequency usage with so-channel adjacent MTA licensees and all other affected parties. To the extent that a single entity obtains licenses for adjacent MTAs on the same channel block, it will not be required to coordinate its operations in this manner. In the event that this standard conflicts with the MTA licensee’s obligation to provide co-channel protection to incumbent licensees under § 90.621(b), the requirements of § 90.621(b) shall prevail.

[60 FR 21992, May 4, 1995]

PROCEDURES AND PROCESS—
UNACCEPTABLE INTERFERENCE**§ 90.672 Unacceptable interference to non-cellular 800 MHz licensees from 800 MHz cellular systems or part 22 Cellular Radiotelephone systems, and within the 900 MHz Business/Industrial Land Transportation Pool.**

(a) *Definition.* Except as provided in 47 CFR 90.617(k), unacceptable interference to non-cellular licensees in the 800 MHz band from 800 MHz cellular systems or part 22 of this chapter, Cellular Radiotelephone systems and within the 900 MHz Business/Industrial Land Transportation (B/ILT) Pool will be deemed to occur when the below conditions are met:

(1) A transceiver at a site at which interference is encountered:

(i) Is in good repair and operating condition, and is receiving:

(A) A median desired signal strength of -104 dBm or higher if operating in the 800 MHz band, or a median desired signal strength of -88 dBm if operating in the 900 MHz B/ILT Pool, as measured at the R.F. input of the receiver of a mobile unit; or

(B) A median desired signal strength of -101 dBm or higher if operating in the 800 MHz band, or a median desired signal strength of -85 dBm if operating in the 900 MHz B/ILT Pool, as measured at the R.F. input of the receiver of a portable *i.e.*, hand-held unit; and either

(ii) Is a voice transceiver:

(A) With manufacturer published performance specifications for the receiver section of the transceiver equal to, or exceeding, the minimum standards set out in paragraph (b) of this section, and;

(B) Receiving an undesired signal or signals which cause the measured Carrier to Noise plus Interference (C/(I+N)) ratio of the receiver section of said transceiver to be less than 20 dB if operating in the 800 MHz band, or less than 17 dB if operating in the 900 MHz B/ILT Pool, or;

(iii) Is a non-voice transceiver receiving an undesired signal or signals which cause the measured bit error rate (BER) (or some comparable specification) of the receiver section of said transceiver to be more than the value

reasonably designated by the manufacturer.

(2) Provided, however, that if the receiver section of the mobile or portable voice transceiver does not conform to the standards set out in paragraph (b) of this section, then that transceiver shall be deemed subject to unacceptable interference only at sites where the median desired signal satisfies the applicable threshold measured signal power in paragraphs (a)(1)(i) of this section after an upward adjustment to account for the difference in receiver section performance. The upward adjustment shall be equal to the increase in the desired signal required to restore the receiver section of the subject transceiver to the 20 dB C/(I+N) ratio of paragraph (a)(1)(ii)(B) of this section. The adjusted threshold levels shall then define the minimum measured signal power(s) in lieu of paragraphs (a)(1)(i) of this section at which the licensee using such non-compliant transceiver is entitled to interference protection.

(b) *Minimum Receiver Requirements.* Voice transceivers capable of operating in the 806–824 MHz portion of the 800 MHz band, or in the 900 MHz Business/Industrial Land Transportation Pool, shall have the following minimum performance specifications in order for the system in which such transceivers are used to claim entitlement to full protection against unacceptable interference. (See paragraph (a)(2) of this section.)

(1) Voice units intended for mobile use: 75 dB intermodulation rejection ratio; 75 dB adjacent channel rejection ratio; -116 dBm reference sensitivity.

(2) Voice units intended for portable use: 70 dB intermodulation rejection ratio; 70 dB adjacent channel rejection ratio; -116 dBm reference sensitivity.

(3) Voice units intended for mobile or portable use in the 900 MHz Business/Industrial Land Transportation Pool: 60 dB intermodulation rejection ratio; 60 dB adjacent channel rejection ratio; -116 dBm reference sensitivity.

[73 FR 67800, Nov. 17, 2008]

§ 90.673

§ 90.673 Obligation to abate unacceptable interference.

(a) *Strict Responsibility.* Any licensee who, knowingly or unknowingly, directly or indirectly, causes or contributes to causing unacceptable interference to a non-cellular licensee in the 800 MHz band, as defined in this chapter, shall be strictly accountable to abate the interference, with full cooperation and utmost diligence, in the shortest time practicable. Interfering licensees shall consider all feasible interference abatement measures, including, but not limited to, the remedies specified in the interference resolution procedures set forth in this chapter. This strict responsibility obligation applies to all forms of interference, including out-of-band emissions and intermodulation.

(b) *Joint and Several Responsibility.* If two or more licensees knowingly or unknowingly, directly or indirectly, cause or contribute to causing unacceptable interference to a non-cellular licensee in the 800 MHz band, as defined in this chapter, such licensees shall be jointly and severally responsible for abating interference, with full cooperation and utmost diligence, in the shortest practicable time. This joint and several responsibility rule requires interfering licensees to consider all feasible interference abatement measures, including, but not limited to, the remedies specified in the interference resolution procedures set forth in this chapter. This joint and several responsibility rule applies to all forms of interference, including out-of-band emissions and intermodulation.

(1) This joint and several responsibility rule requires interfering licensees to consider all feasible interference abatement measures, including, but not limited to, the remedies specified in the interference resolution procedures set forth in § 90.674(c). This joint and several responsibility rule applies to all forms of interference, including out-of-band emissions and intermodulation.

(2) Any licensee that can show that its signal does not directly or indirectly, cause or contribute to causing unacceptable interference to a non-cellular licensee in the 800 MHz band, as defined in this chapter, shall not be

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held responsible for resolving unacceptable interference. Notwithstanding, any licensee that receives an interference complaint from a public safety/CII licensee shall respond to such complaint consistent with the interference resolution procedures set forth in this chapter.

[69 FR 67849, Nov. 22, 2004]

§ 90.674 Interference resolution procedures before, during and after band reconfiguration.

(a) *Initial Notification.* Any non-cellular licensee operating in the 806–824/851–869 MHz band who reasonably believes it is receiving unacceptable interference, as described in § 90.672, shall provide an initial notification of the interference incident. This initial notification of an interference incident shall be sent to all part 22 of this chapter Cellular Radiotelephone licensees and ESMR licensees who operate cellular base stations (“cell sites”) within 1,524 meters (5,000 feet) of the interference incident.

(1) The initial notification of interference shall include the following information on interference:

(i) The specific geographical location where the interference occurs, and the time or times at which the interference occurred or is occurring;

(ii) A description of its scope and severity, including its source, if known;

(iii) The relevant Commission licensing information of the party suffering the interference; and

(iv) A single point of contact for the party suffering the interference.

(2) ESMR licensees, in conjunction with part 22 Cellular Radiotelephone licensees, shall establish an electronic means of receiving the initial notification described in paragraph (a)(1) of this section. The electronic system must be designed so that all appropriate 800 MHz ESMR and part 22 Cellular Radiotelephone licensees can be contacted about the interference incident with a single notification. The electronic system for receipt of initial notification of interference complaints must be operating no later than February 22, 2005.

(3) ESMR licensees must respond to the initial notification described in paragraph (a)(1) of this section, as soon

as possible and no later than 24 hours of receipt of notification from a public safety/CII licensee. This response time may be extended to 48 hours after receipt from other non-cellular licensees provided affected communications on these systems are not safety related.

(b) *Interference analysis.* ESMR licensees—who receive an initial notification described in paragraph (a) of this section—shall perform a timely analysis of the interference to identify the possible source. Immediate on-site visits may be conducted when necessary to complete timely analysis. Interference analysis must be completed and corrective action initiated within 48 hours of the initial complaint from a public safety/CII licensee. This response time may be extended to 96 hours after the initial complaint from other non-cellular licensees provided affected communications on these systems are not safety related. Corrective action may be delayed if the affected licensee agrees in writing (which may be, but is not required to be, recorded via e-mail or other electronic means) to a longer period.

(c) *Mitigation Steps.* (1) All 800 MHz cellular system licensees and part 22 of this chapter Cellular Radiotelephone licensees who are responsible for causing unacceptable interference shall take all affirmative measures to resolve such interference. 800 MHz cellular system licensees found to contribute to harmful interference, as defined in § 90.672, shall resolve such interference in the shortest time practicable. 800 MHz cellular system licensees and part 22 of this chapter Cellular Radiotelephone licensees must provide all necessary test apparatus and technical personnel skilled in the operation of such equipment as may be necessary to determine the most appropriate means of timely eliminating the interference. However, the means whereby interference is abated or the cell parameters that may need to be adjusted is left to the discretion of involved 800 MHz cellular system licensees and/or part 22 of this chapter Cellular Radiotelephone licensees, whose affirmative measures may include, but not be limited to, the following techniques:

(i) Increasing the desired power of the public safety signal;

(ii) Decreasing the power of the ESMR and/or part 22 Cellular Radiotelephone signal;

(iii) Modifying the ESMR and/or part 22 Cellular Radiotelephone systems antenna height;

(iv) Modifying the ESMR and/or part 22 Cellular Radiotelephone system antenna characteristics;

(v) Incorporating filters into ESMR and/or part 22 Cellular Radiotelephone system transmission equipment;

(vi) Permanently changing ESMR and/or part 22 Cellular Radiotelephone system frequencies; and

(vii) Supplying interference-resistant receivers to the affected public safety licensee(s). If this technique is used, in all circumstances, the ESMR and/or part 22 Cellular Radiotelephone licensees shall be responsible for all costs thereof.

(2) Whenever short-term interference abatement measures prove inadequate, the affected licensee shall, consistent with but not compromising safety, make all necessary concessions to accepting interference until a longer-term remedy can be implemented.

(3) *Discontinuing operations when clear and imminent danger exists.* When a public safety licensee determines that a continuing presence of interference constitutes a clear and imminent danger to life or property, the licensee causing the interference must discontinue the associated operation immediately, until a remedy can be identified and applied. The determination that a continuing presence exists that constitutes a clear and imminent danger to life or property, must be made by written statement that:

(i) Is in the form of a declaration, notarized affidavit, or statement under penalty or perjury, from an officer or executive of the affected public safety licensee;

(ii) Thoroughly describes the basis of the claim of clear and imminent danger;

(iii) Was formulated on the basis of either personal knowledge or belief after due diligence;

(iv) Is not proffered by a contractor or other third party; and

(v) Has been approved by the Chief of the Public Safety and Homeland Security Bureau or other designated Commission official. Prior to the authorized official making a determination that a clear and imminent danger exists, the associated written statement must be served by hand-delivery or receipted fax on the applicable offending licensee, with a copy transmitted by the fastest available means to the Washington, DC office of the Commission's Public Safety and Homeland Security Bureau.

[69 FR 67849, Nov. 22, 2004, as amended at 70 FR 76711, Dec. 28, 2005; 71 FR 69038, Nov. 29, 2006]

§ 90.675 Information exchange.

(a) *Prior coordination.* Public safety/CII licensees may notify an ESMR or part 22 Cellular Radiotelephone licensee that they wish to receive prior notification of the activation or modification of ESMR or part 22 Cellular Radiotelephone cell sites in their area. Thereafter, the ESMR or part 22 Cellular Radiotelephone licensee must provide the following information to the public safety/CII licensee at least 10 business days before a new cell site is activated or an existing cell site is modified:

- (1) Location;
- (2) Effective radiated power;
- (3) Antenna height;
- (4) Channels available for use.

(b) *Purpose of prior coordination.* The coordination of cell sites is for informational purposes only: public safety/CII licensees are not afforded the right to accept or reject the activation of a proposed cell or to unilaterally require changes in its operating parameters. The principal purposes of notification are to:

- (1) Allow a public safety/CII licensee to advise the ESMR or part 22 Cellular Radiotelephone licensee whether it believes a proposed cell will generate unacceptable interference;
- (2) Permit ESMR or part 22 Cellular Radiotelephone licensees to make voluntary changes in cell parameters when a public safety licensee alerts them to possible interference; and
- (3) Rapidly identify the source if interference is encountered when the cell is activated.

(c) *Public safety information exchange.*

(1) Upon request by an ESMR or part 22 Cellular Radiotelephone licensee, public safety/CII licensees who operate radio systems in the 806–824/851–869 MHz shall provide the operating parameters of their radio system to the ESMR or part 22 Cellular Radiotelephone licensee.

(2) Public safety licensees who perform the information exchange as described in this section must notify the appropriate ESMR and part 22 Cellular Radiotelephone licensees prior to any technical changes to their radio system.

EFFECTIVE DATE NOTE: At 69 FR 67849, Nov. 22, 2004, § 90.675 was added. This section contains information collection and record-keeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

§ 90.676 Transition administrator for reconfiguration of the 806–824/851–869 MHz band in order to separate cellular systems from non-cellular systems.

The Transition Administrator will be an independent party with no financial interest in any 800 MHz licensee; and will be selected by a committee representative of 800 MHz licensees. The Transition Administrator will serve both a ministerial role and a function similar to a special master in a judicial proceeding.

(a) The duties of the Transition Administrator will include, but not be limited to:

(1) Obtaining estimates from licensees regarding the cost of reconfiguring their systems and ensuring that estimates contain a firm work schedule. The Transition Administrator will retain copies of all estimates and make them available to the Commission on request.

(2) Mediating disputes regarding cost estimates for reconfiguring a system.

(3) Issuing the Draw Certificate to authorize and instruct the Letter of Credit Trustee to draw down on the Letter of Credit to pay relocation costs in connection with reconfiguring a licensee's system.

(4) Establishing a relocation schedule on a NPSAC region-by-region basis, prioritizing the regions on the basis of

population. However, should a given region be encountering unusually severe amounts of unacceptable interference, that region may be moved up in priority. Any party disputing such a change in priority may refer the matter to the Chief, Public Safety and Homeland Security Bureau, who hereby is delegated the authority to resolve such disputes. The Transition Administrator may direct that adjoining regions be reconfigured simultaneously when conditions so require.

(5) The Transition Administrator will coordinate relocation of a NPSPAC Region's NPSPAC channels with the relevant Regional Planning Committee(s) prior to commencing band reconfiguration in a NPSPAC Region.

(b) Once band reconfiguration commences in a given NPSPAC Region, the Transition Administrator will:

(1) Monitor the retuning schedule and resolve any schedule delays or refer same to the Chief, Public Safety and Homeland Security Bureau, for resolution;

(2) Coordinate with adjoining NPSPAC Regions to ensure that interference is not being caused to their existing facilities from relocated stations;

(3) Provide quarterly progress reports to the Commission in such detail as the Commission may require and include, with such reports, certifications by Nextel and the relevant licensees that relocation has been completed and that both parties agree on the amount received from the letter of credit proceeds in connection with relocation of the licensees' facilities. The report shall include description of any disputes that have arisen and the manner in which they were resolved. These quarterly reports need not be audited. The Transition Administrator may select the dates for filing the quarterly progress reports;

(4) Provide the Chief, Public Safety and Homeland Security Bureau, with an annual audited statement of relocation funds expended to date, including salaries and expenses of Transition Administrator. The Transition Administrator may select the date for filing the annual audited statement;

(5) Facilitate resolution of disputes by mediation; or referral of the parties

to alternative dispute resolution services as described in § 90.677(d).

(6) Notify the Commission when band reconfiguration is complete in each 800 MHz NPSPAC Region and identify which vacant channels are exclusively available to eligible applicants in the Public Safety or Critical Infrastructure Industry Categories as set forth in § 90.615(a), (b) and 90.617(g), (h).

(c) The Transition Administrator may not serve as the repository of funds used in band reconfiguration, excepting such sums as Nextel may pay for the Transition Administrator's services. Moreover, the Transition Administrator will not be certified by the Commission as a frequency coordinator.

[69 FR 67849, Nov. 22, 2004, as amended at 70 FR 6760, Feb. 8, 2005; 70 FR 76711, Dec. 28, 2005; 71 FR 69038, Nov. 29, 2006]

§ 90.677 Reconfiguration of the 806-824/851-869 MHz band in order to separate cellular systems from non-cellular systems.

In order to facilitate reconfiguration of the 806-824/851-869 MHz band ("800 MHz band") to separate high-density cellular systems from non-cellular systems, Nextel Communications, Inc. (Nextel) may relocate incumbents within the 800 MHz band by providing "comparable facilities." For the limited purpose of band reconfiguration, the provisions of § 90.157 shall not apply and inter-category sharing will be permitted under all circumstances. Such relocation is subject to the following provisions:

(a) Within thirty days of Commission approval of the Transition Administrator, the Transition Administrator described in § 90.676 will provide the Commission with a schedule detailing when band reconfiguration shall commence for each NPSPAC Region. The plan should also detail—by NPSPAC Region—which relocation option each non-Nextel ESMR licensee has chosen. The Chief, Public Safety and Homeland Security Bureau will finalize and approve such a plan. The schedule shall provide for completion of band reconfiguration in no more than thirty-six months following release of a public

notice announcing the start date of reconfiguration in the first NPSPAC region. Relocation will commence according to the schedule set by the Transition Administrator but all systems must have commenced reconfiguration within thirty months of release of a public notice announcing the start date of reconfiguration in the first NPSPAC region.

(b) *Voluntary negotiations.* Thirty days before the start date for each NPSPAC region other than Region 47 and Region 48, the Chief, Public Safety and Homeland Security Bureau will issue a public notice initiating a three-month voluntary negotiation period. During this voluntary negotiation period, Nextel and all incumbents may negotiate any mutually agreeable relocation agreement. Sprint Nextel and relocating incumbents may agree to conduct face-to-face negotiations or either party may elect to communicate with the other party through the Transition Administrator.

(c) *Mandatory negotiations.* If no agreement is reached by the end of the voluntary period, a three-month mandatory negotiation period will begin during which both Sprint Nextel and the incumbents must negotiate in “good faith.” In Region 47, a 90-day mandatory negotiation period will begin 60 days after the effective date of the Third Report and Order and Third Further Notice of Proposed Rulemaking in WT Docket 02–55. In Region 48, a 90-day mandatory negotiation period will begin on March 21, 2011. Sprint Nextel and relocating incumbents may agree to conduct face-to-face negotiations or either party may elect to communicate with the other party through the Transition Administrator. All parties are charged with the obligation of utmost “good faith” in the negotiation process. Among the factors relevant to a “good-faith” determination are:

(1) Whether the party responsible for paying the cost of band reconfiguration has made a bona fide offer to relocate the incumbent to comparable facilities;

(2) The steps the parties have taken to determine the actual cost of relocation to comparable facilities; and

(3) Whether either party has unreasonably withheld information, essen-

tial to the accurate estimation of relocation costs and procedures, requested by the other party. The Transition Administrator may schedule mandatory settlement negotiations and mediation sessions and the parties must conform to such schedules.

(d) *Transition Administrator.* (1) The Transition Administrator, or other mediator, shall attempt to resolve disputes referred to it before the conclusion of the mandatory negotiation period as described in § 90.677(c) within thirty working days after the Transition Administrator has received a submission by one party and a response from the other party. Any party thereafter may seek expedited non-binding arbitration which must be completed within thirty days of the Transition Administrator’s, or other mediator’s recommended decision or advice. Should issues still remain unresolved after mediation or arbitration they shall be referred to the Chief, Public Safety and Homeland Security Bureau within ten days of the Transition Administrator’s or other mediator’s advice, or if arbitration has occurred, within ten days of the completion of arbitration. When referring an unresolved matter to the Chief, Public Safety and Homeland Security Bureau, the Transition Administrator shall forward the entire record on any disputed issues, including such dispositions thereof that the Transition Administrator has considered. Upon receipt of such record and advice, the Commission will decide the disputed issues based on the record submitted. The authority to make such decisions is delegated to the Chief, Public Safety and Homeland Security Bureau who may decide the disputed issue or designate it for an evidentiary hearing before an Administrative Law Judge. If the Chief, Public Safety and Homeland Security Bureau decides an issue, any party to the dispute wishing to appeal the decision may do so by filing with the Commission, within ten days of the effective date of the initial decision, a Petition for de novo review; whereupon

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the matter will be set for an evidentiary hearing before an Administrative Law Judge. Any disputes submitted to the Transition Administrator after the conclusion of the mandatory negotiation period as described in §90.677(c) shall be resolved as described in §90.677(d)(2).

(2) If no agreement is reached during either the voluntary or mandatory negotiating periods, all disputed issues shall be referred to the Transition Administrator, or other mediator, who shall attempt to resolve them. If disputed issues remain thirty working days after the end of the mandatory negotiation period, the Transition Administrator shall forward the record to the Chief, Public Safety and Homeland Security Bureau, together with advice on how the matter(s) may be resolved. The Chief, Public Safety and Homeland Security Bureau is hereby delegated the authority to rule on disputed issues, *de novo*. If the Chief, Public Safety and Homeland Security Bureau decides an issue, any party to the dispute wishing to appeal the decision may do so by filing with the Commission, within ten days of the effective date of the initial decision, a Petition for *de novo* review; whereupon the matter will be set for an evidentiary hearing before an Administrative Law Judge.

(e) *Waiver Requests*. Incumbents who wish not to relocate according to the schedule may petition the Commission for a waiver of the relocation obligation. Such a waiver would only be granted on a strict non-interference basis.

(f) *Comparable Facilities*. The replacement system provided to an incumbent must be at least equivalent to the existing 800 MHz system with respect to the four factors described in §90.699(d) part.

(g) *Information Exchange*. Absent agreement between parties, the Transition Administrator will be responsible for determining the information that relocating incumbents must supply in support of a relocation agreement.

(h) The relevant Regional Planning Committee shall be informed of any

proposed changes to any NPSPAC channel.

[69 FR 67849, Nov. 22, 2004, as amended at 70 FR 76711, Dec. 28, 2005; 71 FR 52751, Sept. 7, 2006; 71 FR 69038, Nov. 29, 2006; 75 FR 35318, June 22, 2010; 76 FR 11683, Mar. 3, 2011]

POLICIES GOVERNING THE LICENSING AND USE OF EA-BASED SMR SYSTEMS IN THE 809–824/851–869 MHz BAND

§ 90.681 EA-based SMR service areas.

EA licenses in for channels 711 through 830 and Spectrum Blocks A through V listed in Tables 4 and 5 of §90.617 are available in 175 Economic Areas (EAs) as defined in §90.7.

[69 FR 67852, Nov. 22, 2004]

§ 90.683 EA-based SMR system operations.

(a) EA-based licensees authorized in the 809–824/854–869 MHz band pursuant to §90.681 of this part may construct and operate base stations using any of the base station frequencies identified in their spectrum block anywhere within their authorized EA, provided that:

(1) The EA licensee affords protection, in accordance with §90.621(b), to all previously authorized co-channel stations that are not associated with another EA license;

(2) The EA licensee complies with any rules and international agreements that restrict use of frequencies identified in their spectrum block, including the provisions of §90.619 relating to U.S./Canadian and U.S./Mexican border areas;

(3) The EA licensee limits the field strength of its base stations at any location on the border of the EA service area in accordance with §90.689;

(4) Upon request by an incumbent licensee or the Commission, the EA licensee shall furnish the technical parameters, location and coordinates of the completion of the addition, removal, relocation or modification of any of its facilities within the EA. The EA licensee must provide such information within ten (10) days of receiving a written request.

(5) For any construction or alteration that would exceed the requirements of §17.7 of this chapter, licensees must notify the appropriate Regional

Office of the Federal Aviation Administration (FAA Form 7460–1) and file a request for antenna height clearance and obstruction marking and lighting specifications (FCC Form 854) with the FCC, WTB, Support Services Branch, Gettysburg, PA 17325.

(6) Any additional transmitters placed in operation must not have a significant environmental effect as defined by §§ 1.1301 through 1.1319 of this chapter.

(b) In the event that the authorization for a previously authorized co-channel station within the EA licensee's spectrum block is terminated or revoked, the EA licensee's co-channel obligations to such station will cease upon deletion of the facility from the Commission's official licensing records, and the EA licensee then will be able to construct and operate without regard to that previous authorization.

[61 FR 6158, 6159, Feb. 16, 1996, as amended at 62 FR 41216, July 31, 1997; 63 FR 68970, Dec. 14, 1998; 69 FR 67852, Nov. 22, 2004]

§ 90.685 Authorization, construction and implementation of EA licenses.

(a) EA licenses in the 809–824/854–869 MHz band will be issued for a term not to exceed ten years. Additionally, EA licensees generally will be afforded a renewal expectancy only for those stations put into service after August 10, 1996.

(b) EA licensees in the 809–824/854–869 MHz band must, within three years of the grant of their initial license, construct and place into operation a sufficient number of base stations to provide coverage to at least one-third of the population of its EA-based service area. Further, each EA licensee must provide coverage to at least two-thirds of the population of the EA-based service area within five years of the grant of their initial license. EA-based licensees may, in the alternative, provide substantial service to their markets within five years of the grant of their initial license. Substantial service shall be defined as: “Service which is sound, favorable, and substantially above a level of mediocre service.”

(c) *Channel use requirement.* In addition to the population coverage requirements described in this section, we will require EA licensees in Channel

blocks A, B and C in the 816–821/861–866 MHz band to construct 50 percent of the total channels included in their spectrum block in at least one location in their respective EA-based service area within three years of initial license grant and to retain such channel usage for the remainder of the construction period.

(d) An EA licensee's failure to meet the population coverage requirements of paragraphs (b) and (c) of this section, will result in forfeiture of the entire EA license. Forfeiture of the EA license, however, would not result in the loss of any constructed facilities authorized to the licensee prior to the date of the commencement of the auction for the EA licenses.

(e) EA licensees operating on channels listed in § 90.614(b) and (c) must implement an Enhanced Specialized Mobile Radio (ESMR) system—as defined in § 90.7—on their EA license and any associated site-based licenses prior to the expiration date of the EA license. EA licensees operating on these channels shall follow the construction notification procedures set forth in § 1.946(d) of this chapter. Failure to implement an ESMR system on their EA and site-based licenses before the expiration date of the EA license will result in termination of the EA license and any associated site-based licenses pursuant to § 1.946(c) of this chapter.

[62 FR 41216, July 31, 1997, as amended at 69 FR 67852, Nov. 22, 2004; 70 FR 6760, Feb. 8, 2005; 70 FR 76712, Dec. 28, 2005]

§ 90.687 Special provisions regarding assignments and transfers of authorizations for incumbent SMR licensees in the 809–824/854–869 MHz band.

An SMR license initially authorized on any of the channels listed in Tables 4 and 5 of § 90.617 may transfer or assign its channel(s) to another entity subject to the provisions of § 1.948 of this chapter and § 90.609(b). If the proposed transferee or assignee is the EA licensee for the spectrum block to which the channel is allocated, such transfer or assignment presumptively will be deemed to be in the public interest. However, such presumption will be rebuttable.

[69 FR 67852, Nov. 22, 2004]

§ 90.689 Field strength limits.

(a) For purposes of implementing §§ 90.689 through 90.699, predicted 36 and 40 dBµV/m contours shall be calculated using Figure 10 of § 73.699 of this chapter with a correction factor of -9 dB, and predicted 18 and 22 dBµV/m contours shall be calculated using Figure 10a of § 73.699 of this chapter with a correction factor of -9 dB.

(b) The predicted or measured field strength at any location on the border of the EA-based service area for EA licensees must not exceed 40 dBµV/m unless all bordering EA licensees agree to a higher field strength. In the event that this standard conflicts with the EA licensee's obligation to provide co-channel protection to incumbent licensees pursuant to § 90.621(b), the requirements of § 90.621(b) shall prevail.

[61 FR 6158, 6159, Feb. 16, 1996, as amended at 62 FR 41216, July 31, 1997]

§ 90.691 Emission mask requirements for EA-based systems.

(a) Out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at

its discretion, require greater attenuation than specified in this section.

§ 90.693 Grandfathering provisions for incumbent licensees.

(a) *General provisions.* These provisions apply to "incumbent licensees," all 800 MHz licensees authorized in the 809-821/854-866 MHz band who obtained licenses or filed applications on or before December 15, 1995.

(b) *Spectrum blocks A through V.* An incumbent licensee's service area shall be defined by its originally licensed 40 dBµV/m field strength contour and its interference contour shall be defined as its originally-licensed 22 dBµV/m field strength contour. The "originally-licensed" contour shall be calculated using the maximum ERP and the actual height of the antenna above average terrain (HAAT) along each radial. Incumbent licensees are permitted to add, remove or modify transmitter sites within their original 22 dBµV/m field strength contour without prior notification to the Commission so long as their original 22 dBµV/m field strength contour is not expanded. Incumbent licensee protection extends only to its 40 dBµV/m signal strength contour. Pursuant to the minor modification notification procedures set forth in 1.947(b), the incumbent licensee must notify the Commission within 30 days of any change in technical parameters for stations that are authorized under a waiver of 90.621(b)(4), or that are authorized under 90.621(b)(5).

(c) *Special provisions for spectrum blocks F1 through V.* Incumbent licensees that have received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBµV/m signal strength interference contour shall have their service area defined by their originally-licensed 36 dBµV/m field strength contour and their interference contour shall be defined as their originally-licensed 18 dBµV/m field strength contour. The "originally-licensed" contour shall be calculated using the maximum ERP and the actual HAAT along each radial. Incumbent licensees seeking to utilize an 18 dBµV/m signal strength interference contour shall first seek to

obtain the consent of affected co-channel incumbents. When the consent of a co-channel licensee is withheld, an incumbent licensee may submit to any certified frequency coordinator an engineering study showing that interference will not occur, together with proof that the incumbent licensee has sought consent. Incumbent licensees are permitted to add, remove or modify transmitter sites within their original 18 dBµV/m field strength contour without prior notification to the Commission so long as their original 18 dBµV/m field strength contour is not expanded. Incumbent licensee protection extends only to its 36 dBµV/m signal strength contour. Pursuant to the minor modification notification procedures set forth in 1.947(b), the incumbent licensee must notify the Commission within 30 days of any change in technical parameters for stations that are authorized under a waiver of 90.621(b)(4), or that are authorized under 90.621(b)(5).

(d) *Consolidated license*—(1) *Spectrum blocks A through V*. Incumbent licensees operating at multiple sites may, after grant of EA licenses has been completed, exchange multiple site licenses for a single license, authorizing operations throughout the contiguous and overlapping 40 dBµV/m field strength contours of the multiple sites. Incumbents exercising this license exchange option must submit specific information on Form 601 for each of their external base sites after the close of the 800 MHz SMR auction. The incumbent's geographic license area is defined by the contiguous and overlapping 22 dBµV/m contours of its constructed and operational external base stations and interior sites that are constructed within the construction period applicable to the incumbent. Once the geographic license is issued, facilities that are added within an incumbent's existing footprint and that are not subject to prior approval by the Commission will not be subject to construction requirements.

(2) *Special Provisions for Spectrum Blocks F1 through V*. Incumbent licensees that have received the consent of all affected parties or a certified frequency coordinator to utilize an 18 dBµV/m signal strength interference

contour operating at multiple sites may, after grant of EA licenses has been completed, exchange multiple site licenses for a single license. This single site license will authorize operations throughout the contiguous and overlapping 36 dBµV/m field strength contours of the multiple sites. Incumbents exercising this license exchange option must submit specific information on Form 601 for each of their external base sites after the close of the 800 SMR auction. The incumbent's geographic license area is defined by the contiguous and overlapping 18 dBµV/m contours of its constructed and operational external base stations and interior sites that are constructed within the construction period applicable to the incumbent. Once the geographic license is issued, facilities that are added within an incumbent's existing footprint and that are not subject to prior approval by the Commission will not be subject to construction requirements.

[64 FR 71055, Dec. 20, 1999, as amended at 69 FR 67852, Nov. 22, 2004; 70 FR 6761, Feb. 8, 2005; 70 FR 61062, Oct. 20, 2005]

§ 90.699 Transition of the upper 200 channels in the 800 MHz band to EA licensing.

In order to facilitate provision of service throughout an EA, an EA licensee may relocate incumbent licensees in its EA by providing “comparable facilities” on other frequencies in the 800 MHz band. Such relocation is subject to the following provisions:

(a) EA licensees may negotiate with incumbent licensees as defined in § 90.693 operating on frequencies in Spectrum Blocks A, B, and C for the purpose of agreeing to terms under which the incumbents would relocate their operations to other frequencies in the 800 MHz band, or alternatively, would accept a sharing arrangement with the EA licensee that may result in an otherwise impermissible level of interference to the incumbent licensee's operations. EA licensees may also negotiate agreements for relocation of the incumbents' facilities within Spectrum Blocks A, B or C in which all interested parties agree to the relocation of the incumbent's facilities elsewhere within these bands. “All interested

parties” includes the incumbent licensee, the EA licensee requesting and paying for the relocation, and any EA licensee of the spectrum to which the incumbent’s facilities are to be relocated.

(b) The relocation mechanism consists of two phases that must be completed before an EA licensee may proceed to request the involuntary relocation of an incumbent licensee.

(1) *Voluntary negotiations.* There is a one year voluntary period during which an EA licensee and an incumbent may negotiate any mutually agreeable relocation agreement. The Commission will announce the commencement of the first phase voluntary period by Public Notice. EA licensees must notify incumbents operating on frequencies included in their spectrum block of their intention to relocate such incumbents within 90 days of the release of the Public Notice that commences the voluntary negotiation period. Failure on the part of the EA licensee to notify the incumbent licensee during this 90 period of its intention to relocate the incumbent will result in the forfeiture of the EA licensee’s right to request involuntary relocation of the incumbent at any time in the future.

(2) *Mandatory negotiations.* If no agreement is reached by the end of the voluntary period, a one-year mandatory negotiation period will begin during which both the EA licensee and the incumbent must negotiate in “good faith.” Failure on the part of the EA licensee to negotiate in good faith during this mandatory period will result in the forfeiture of the EA licensee’s right to request involuntary relocation of the incumbent at any time in the future.

(c) *Involuntary relocation procedures.* If no agreement is reached during either the voluntary or mandatory negotiating periods, the EA licensee may request involuntary relocation of the incumbent’s system. In such a situation, the EA licensee must:

(1) Guarantee payment of relocation costs, including all engineering, equipment, site and FCC fees, as well as any legitimate and prudent transaction expenses incurred by the incumbent licensee that are directly attributable to

an involuntary relocation, subject to a cap of two percent of the hard costs involved. Hard costs are defined as the actual costs associated with providing a replacement system, such as equipment and engineering expenses. EA licensees are not required to pay incumbent licensees for internal resources devoted to the relocation process. EA licensees are not required to pay for transaction costs incurred by incumbent licensees during the voluntary or mandatory periods once the involuntary period is initiated, or for fees that cannot be legitimately tied to the provision of comparable facilities;

(2) Complete all activities necessary for implementing the replacement facilities, including engineering and cost analysis of the relocation procedure and, if radio facilities are used, identifying and obtaining, on the incumbents’ behalf, new frequencies and frequency coordination; and

(3) Build the replacement system and test it for comparability with the existing 800 MHz system.

(d) *Comparable facilities.* The replacement system provided to an incumbent during an involuntary relocation must be at least equivalent to the existing 800 MHz system with respect to the following four factors:

(1) *System.* System is defined functionally from the end user’s point of view (*i.e.*, a system is comprised of base station facilities that operate on an integrated basis to provide service to a common end user, and all mobile units associated with those base stations). A system may include multiple-licensed facilities that share a common switch or are otherwise operated as a unitary system, provided that the end user has the ability to access all such facilities. A system may cover more than one EA if its existing geographic coverage extends beyond the EA borders.

(2) *Capacity.* To meet the comparable facilities requirement, an EA licensee must relocate the incumbent to facilities that provide equivalent channel capacity. We define channel capacity as the same number of channels with the same bandwidth that is currently available to the end user. For example, if an incumbent’s system consists of five 50 kHz (two 25 kHz paired frequencies) channels, the replacement

system must also have five 50 kHz channels. If a different channel configuration is used, it must have the same overall capacity as the original configuration. Comparable channel capacity requires equivalent signaling capability, baud rate, and access time. In addition, the geographic coverage of the channels must be coextensive with that of the original system.

(3) *Quality of service.* Comparable facilities must provide the same quality of service as the facilities being replaced. Quality of service is defined to mean that the end user enjoys the same level of interference protection on the new system as on the old system. In addition, where voice service is provided, the voice quality on the new system must be equal to the current system. Finally, reliability of service is considered to be integral to defining quality of service. Reliability is the degree to which information is transferred accurately within the system. Reliability is a function of equipment failures (*e.g.*, transmitters, feed lines, antennas, receivers, battery back-up power, etc.) and the availability of the frequency channel due to propagation characteristics (*e.g.*, frequency, terrain, atmospheric conditions, radio-frequency noise, etc.) For digital data systems, this will be measured by the percent of time the bit error rate exceeds the desired value. For analog or digital voice transmissions, this will be measured by the percent of time that audio signal quality meets an established threshold. If analog voice system is replaced with a digital voice system the resulting frequency response, harmonic distortion, signal-to-noise ratio, and reliability will be considered.

(4) *Operating costs.* Operating costs are those costs that affect the delivery of services to the end user. If the EA licensee provides facilities that entail higher operating cost than the incumbent's previous system, and the cost increase is a direct result of the relocation, the EA licensee must compensate the incumbent for the difference. Costs associated with the relocation process can fall into several categories. First, the incumbent must be compensated for any increased recurring costs associated with the replacement facilities (*e.g.*, additional rental payments, in-

creased utility fees). Second, increased maintenance costs must be taken into consideration when determining whether operating costs are comparable. For example, maintenance costs associated with analog systems may be higher than the costs of digital equipment because manufacturers are producing mostly digital equipment and analog replacement parts can be difficult to find. An EA licensee's obligation to pay increased operating costs will end five years after relocation has occurred.

(e) If an EA licensee cannot provide comparable facilities to an incumbent licensee as defined in this section, the incumbent licensee may continue to operate its system on a primary basis in accordance with the provisions of this rule part.

(f) *Cost-sharing plan for 800 MHz SMR EA licensees.* EA licensees are required to relocate the existing 800 MHz SMR licensee in these bands if interference to the existing incumbent operations would occur. All EA licensees who benefit from the spectrum clearing by other EA licensees must contribute, on a *pro rata* basis to such relocation costs. EA licensees may satisfy this requirement by entering into private cost-sharing agreements or agreeing to terms other than those specified in this section. However, EA licensees are required to reimburse other EA licensees that incur relocation costs and are not parties to the alternative agreement as defined in this section.

(1) *Pro rata formula.* EA licensees who benefit from the relocation of the incumbent must share the relocation costs on a *pro rata* basis. For purposes of determining whether an EA licensee benefits from the relocation of an incumbent, benefitted will be defined as any EA licensee that:

(i) Notifies incumbents operating on frequencies included in their spectrum block of their intention to relocate such incumbents within 90 days of the release of the Public Notice that commences the voluntary negotiation period; or

(ii) Fails to notify incumbents operating on frequencies included in their spectrum block of their intention to relocate such incumbents within 90 days of the release of the Public Notice that

commences the voluntary negotiation period, but subsequently decides to use the frequencies included in their spectrum block. EA licensees who do not participate in the relocation process will be prohibited from invoking mandatory negotiations or any of the provisions of the Commission's mandatory relocation guidelines. EA licensees who do not provide notice to the incumbent, but subsequently decide to use the frequencies in their EA will be required to reimburse, outside of the Commission's mandatory relocation guidelines, those EA licensees who have established a reimbursement right pursuant to paragraph (f)(3) of this section.

(2) *Triggering a reimbursement obligation.* An EA licensee's reimbursement obligation is triggered by:

(i) Notification (*i.e.*, files a copy of the relocation notice and proof of the incumbent's receipt of the notice to the Commission within ten days of receipt), to the incumbent within 90 days of the release of the Public Notice commencing the voluntary negotiation period of its intention to relocate the incumbent; or

(ii) An EA licensee who does not provide notification within 90 days of the release of the Public Notice commencing the voluntary negotiation period, but subsequently decides to use the channels that were relocated by other EA licensees.

(3) *Triggering a reimbursement right.* In order for the EA licensee to trigger a reimbursement right, the EA licensee must notify (*i.e.*, files a copy of the relocation notice and proof of the incumbent's receipt of the notice to the Commission within ten days of receipt), the incumbent of its intention to relocate the incumbent within 90 days of the release of the Public Notice commencing the voluntary negotiation period, and subsequently negotiate and sign a relocation agreement with the incumbent. An EA licensee who relocates a channel outside of its licensed EA (*i.e.*, one that is in another frequency block or outside of its market area), is entitled to *pro rata* reimbursement from non-notifying EA licensees who subsequently exercise their right to the channels based on the following formula:

$$C_i = T_c \times \frac{C_{hj}}{T_{Ch}}$$

C_i equals the amount of reimbursement

T_c equals the actual cost of relocating the incumbent

T_{Ch} equals the total number of channels that are being relocated

C_{hj} equals the number of channels that each respective EA licensee will benefit from

(4) *Payment issues.* EA licensees who benefit from the relocation of the incumbent will be required to submit their *pro rata* share of the relocation expense to EA licensees who have triggered a reimbursement right and have incurred relocation costs as follows:

(i) For an EA licensee who, within 90 days of the release of the Public Notice announcing the commencement of the voluntary negotiation period, provides notice of its intention to relocate the incumbent, but does not participate or incur relocation costs in the relocation process, will be required to reimburse those EA licensees who have triggered a reimbursement right and have incurred relocation costs during the relocation process, its *pro rata* share when the channels of the incumbent have been cleared (*i.e.*, the incumbent has been fully relocated and the channels are free and clear).

(ii) For an EA licensee who does not, within 90 days of the release of the Public Notice announcing the commencement of the voluntary negotiation period, provide notice to the incumbent of its intention to relocate and does not incur relocation costs during the relocation process, but subsequently decides to use the channels in its EA, will be required to submit its *pro rata* share payment to those EA licensees who have triggered a reimbursement right and have incurred relocation costs during the relocation process prior to commencing testing of its system.

(5) *Sunset of reimbursement rights.* EA licensees who do not trigger a reimbursement obligation as set forth in paragraph (f)(2) of this section, shall not be required to reimburse EA licensees who have triggered a reimbursement right as set forth in paragraph (f)(3) of this section ten (10) years after

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the voluntary negotiation period begins for EA licensees (*i.e.*, ten (10) years after the Commission releases the Public Notice commencing the voluntary negotiation period).

(6) *Resolution of disputes that arise during relocation.* Disputes arising out of the costs of relocation, such as disputes over the amount of reimbursement required, will be encouraged to use expedited ADR procedures. ADR procedures provide several alternative methods such as binding arbitration, mediation, or other ADR techniques.

(7) *Administration of the cost-sharing plan.* We will allow for an industry supported, not-for-profit clearinghouse to be established for purposes of administering the cost-sharing plan adopted for the 800 MHz SMR relocation procedures.

[62 FR 41217, July 31, 1997]

Subpart T—Regulations Governing Licensing and Use of Frequencies in the 220–222 MHz Band

SOURCE: 56 FR 19603, Apr. 29, 1991, unless otherwise noted.

§ 90.701 Scope.

(a) Frequencies in the 220–222 MHz band are available for land mobile and fixed use for both Government and non-Government operations. This subpart supplements part 1, subpart F of this chapter which establishes the requirements and conditions under which commercial and private radio stations may be licensed in the Wireless Telecommunications Services. The provisions of this subpart contain additional pertinent information for current and prospective licensees specific to the 220–222 MHz band.

(b)(1) Licensees granted initial authorizations for operations in the 220–222 MHz band from among applications filed on or before May 24, 1991 are referred to in this subpart as “Phase I” licensees;

(2) Applicants that filed initial applications for operations in the 220–222 MHz band on or before May 24, 1991 are referred to in this subpart as “Phase I” applicants; and

(3) All assignments, operations, stations, and systems of licensees granted authorizations from among applications filed for operations in the 220–222 MHz band on or before May 24, 1991 are referred to in this subpart as “Phase I” assignments, operations, stations, and systems, respectively.

(c)(1) Licensees granted initial authorizations for operations in the 220–222 MHz band from among applications filed after May 24, 1991 are referred to in this subpart as “Phase II” licensees;

(2) Applicants that filed initial applications for operations in the 220–222 MHz band after May 24, 1991 are referred to in this subpart as “Phase II” applicants; and

(3) All assignments, operations, stations, and systems of licensees granted authorizations from among applications filed for operations in the 220–222 MHz band after May 24, 1991 are referred to in this subpart as “Phase II” assignments, operations, stations, and systems, respectively.

(d) The rules in this subpart apply to both Phase I and Phase II licensees, applicants, assignments, operations, stations, and systems, unless otherwise specified.

[62 FR 15993, Apr. 3, 1997, as amended at 63 FR 68971, Dec. 14, 1998]

§ 90.703 Eligibility.

The following persons are eligible for licensing in the 220–222 MHz band.

(a) Any person eligible for licensing under subparts B or C of this part.

(b) Any person proposing to provide communications service to any person eligible for licensing under subparts B or C of this part, on a not-for-profit, cost-shared basis.

(c) Any person eligible under this part proposing to provide on a commercial basis, station and ancillary facilities for the use of individuals, federal government agencies and persons eligible for licensing under subparts B or C of this part.

[56 FR 19603, Apr. 29, 1991, as amended at 60 FR 15495, Mar. 24, 1995; 62 FR 18935, Apr. 17, 1997]

§ 90.705 Forms to be used.

Phase II applications for EA, Regional, or Nationwide radio facilities